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 NEWS 2         "Ask CAS" for self-help around the clock
 NEWS 3  FEB 28  PATDPAFULL - New display fields provide for legal status              data from INPADOC
 NEWS 4  FEB 28  BABS - Current-awareness alerts (SDIs) available
 NEWS 5  MAR 02  GBFULL: New full-text patent database on STN
 NEWS 6  MAR 03  REGISTRY/ZREGISTRY - Sequence annotations enhanced
 NEWS 7  MAR 03  MEDLINE file segment of TOXCENTER reloaded
 NEWS 8  MAR 22  KOREAPAT now updated monthly; patent information enhanced
 NEWS 9  MAR 22  Original IDE display format returns to REGISTRY/ZREGISTRY
 NEWS 10 MAR 22  PATDPASPC - New patent database available
 NEWS 11 MAR 22  REGISTRY/ZREGISTRY enhanced with experimental property tags
 NEWS 12 APR 04  EPFULL enhanced with additional patent information and new              fields
 NEWS 13 APR 04  EMBASE - Database reloaded and enhanced
 NEWS 14 APR 18  New CAS Information Use Policies available online
 NEWS 15 APR 25  Patent searching, including current-awareness alerts (SDIs),          based on application date in CA/CAplus and
USPATFULL/USPAT2          may be affected by a change in filing date for U.S.          applications.
 NEWS 16 APR 28  Improved searching of U.S. Patent Classifications for          U.S. patent records in CA/CAplus
 NEWS 17 MAY 23  GBFULL enhanced with patent drawing images
 NEWS 18 MAY 23  REGISTRY has been enhanced with source information from          CHEMCATS
 NEWS 19 JUN 06  The Analysis Edition of STN Express with Discover!          (Version 8.0 for Windows) now available
 NEWS 20 JUN 13  RUSSIAPAT: New full-text patent database on STN
 NEWS 21 JUN 13  FRFULL enhanced with patent drawing images
 NEWS 22 JUN 27  MARPAT displays enhanced with expanded G-group definitions          and text labels
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 NEWS 24 JUL 07  STN Patent Forums to be held in July 2005
 NEWS 25 JUL 13  SCISEARCH reloaded
 NEWS 26 JUL 20  Powerful new interactive analysis and visualization software,          STN AnaVist, now available
 NEWS 27 AUG 11  Derwent World Patents Index(R) web-based training during          August
 NEWS 28 AUG 11  STN AnaVist workshops to be held in North America

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V6.0Jc(JP),          AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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=> s (vesicle# or liposom? or polymerosom?)/bi,ab 82552 VESICLE#/BI 76111 VESICLE#/AB 47608 LIPOSOM?/BI 35618 LIPOSOM?/AB 1 POLYMEROSOM?/BI 0 POLYMEROSOM?/AB
L1 119381 (VESICLE# OR LIPOSOM? OR POLYMEROSOM?)/BI,AB

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L2 297848 (PROBE# OR (TAG(W)MOLECULE#))/BI,AB

=> s l1 and l2
L3 5428 L1 AND L2

=> s l3 not 2005/py 687215 2005/PY
L4 5281 L3 NOT 2005/PY

=> s l4 not 2004/py 1248072 2004/PY
L5 5007 L4 NOT 2004/PY

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L6 1196338 (DNA# OR CDNA# OR RNA# OR MRNA# OR (NUCLEIC(W)ACID#))/BI,AB

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L2 297848 S (PROBE# OR (TAG(W)MOLECULE#))/BI,AB
L3 5428 S L1 AND L2
L4 5281 S L3 NOT 2005/PY
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L6 1196338 S (DNA# OR CDNA# OR RNA# OR MRNA# OR (NUCLEIC(W)ACID#))/BI,AB

=> s l3 and l6
L7 711 L3 AND L6

=> s (peptide# or polypeptide# or protein#)/bi,ab 427850 PEPTIDE#/BI 330121 PEPTIDE#/AB 134654 POLYPEPTIDE#/BI 122046 POLYPEPTIDE#/AB 2059506 PROTEIN#/BI 1658795 PROTEIN#/AB
L8 2306902 (PEPTIDE# OR POLYPEPTIDE# OR PROTEIN#)/BI,AB

=> s l3 and l8
L9 2230 L3 AND L8

=> s l7 or l9
L10 2408 L7 OR L9

=> d his
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L2      297848 S (PROBE# OR (TAG(W)MOLECULE#))/BI,AB
L3        5428 S L1 AND L2
L4        5281 S L3 NOT 2005/PY
L5        5007 S L4 NOT 2004/PY
L6     1196338 S (DNA# OR CDNA# OR RNA# OR MRNA# OR (NUCLEIC(W)ACID#))/BI,AB
L7         711 S L3 AND L6
L8     2306902 S (PEPTIDE# OR POLYPEPTIDE# OR PROTEIN#)/BI,AB
L9        2230 S L3 AND L8
L10       2408 S L7 OR L9

=> s l7 and hybridi?/bi,ab    163341 HYBRIDI?/BI              140371 HYBRIDI?/AB
L11        328 L7 AND HYBRIDI?/BI,AB

=> s l9 and bind?/bi,ab   1123679 BIND?/BI              967480 BIND?/AB
L12        827 L9 AND BIND?/BI,AB

=> s l11 or l12
L13       1082 L11 OR L12

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L5        5007 S L4 NOT 2004/PY
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L8     2306902 S (PEPTIDE# OR POLYPEPTIDE# OR PROTEIN#)/BI,AB
L9        2230 S L3 AND L8
L10       2408 S L7 OR L9
L11        328 S L7 AND HYBRIDI?/BI,AB
L12        827 S L9 AND BIND?/BI,AB
L13       1082 S L11 OR L12

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L14        302 L13 AND DETECT?/BI,AB

=> s l14 not 2005/py    687215 2005/PY
L15        280 L14 NOT 2005/PY

=> s l15 not 2004/py   1248072 2004/PY
L16        233 L15 NOT 2004/PY

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L7         711 S L3 AND L6
L8     2306902 S (PEPTIDE# OR POLYPEPTIDE# OR PROTEIN#)/BI,AB
L9        2230 S L3 AND L8
L10       2408 S L7 OR L9
L11        328 S L7 AND HYBRIDI?/BI,AB
L12        827 S L9 AND BIND?/BI,AB
L13       1082 S L11 OR L12
L14        302 S L13 AND DETECT?/BI,AB
L15        280 S L14 NOT 2005/PY
L16        233 S L15 NOT 2004/PY

=> d l16 1-233 bib ab
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L16 ANSWER 1 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:256220 CAPLUS
DN 141:384036
TI Antigene radiotherapy: Targeted radiodamage with 125I-labeled triplex-forming oligonucleotides
AU Panyutin, I. G.; Sedelnikova, O. A.; Karamychev, V. N.; Neumann, R. D.
CS Department of Nuclear Medicine, Warren G. Magnuson Clinical Center, National Institutes of Health, Bethesda, MD, 20892, USA
SO Annals of the New York Academy of Sciences (2003), 1002(Therapeutic Oligonucleotides), 134-140 CODEN: ANYAA9; ISSN: 0077-8923
PB New York Academy of Sciences
DT Journal; General Review
LA English
AB A review. Antigene radiotherapy is based upon damaging selected genes by a high dose of radiation from radionuclides delivered to this gene by a sequence-specific ***DNA*** - ***binding*** mol. Here we describe our recent trials of antigene radiotherapy using the human mdr1 gene over-expressed in KB-V1 cells as a model. As a delivery mol., we used a triplex-forming oligonucleotide (TFO) with a ***binding*** site in intron 14 of mdr1. This TFO was labeled with an Auger-electron-emitting radionuclide 125I. Decay of 125I releases a shower of low energy electrons that produce ***DNA*** strand breaks mostly within 10 bp from the decay site. Targeting in situ was assessed by restriction enzyme digestion of the ***DNA*** recovered from the TFO-treated cells followed by Southern ***hybridization*** with ***DNA*** ***probes*** flanking the target sequence. Double-strand breaks in the target sequence were ***detected*** in purified nuclei and digitonin-permeabilized cells, but not in the intact cells when TFO were delivered with ***liposomes*** . On the basis of these observations we hypothesized that there are cytoplasmic factors that ***bind*** such TFO and deliver them into the nucleus, but do not release them inside the nucleus, thus preventing TFO from ***binding*** their genomic targets. To test this hypothesis we (i) delivered TFO along with an excess of unlabeled oligonucleotide with an arbitrary sequence ("ballast") and (ii) conjugated TFO with a nuclear localization sequence ***peptide*** (NLS). We have found that TFO/NLS conjugates cleaved the target in a concn.-dependent manner regardless of the presence of the "ballast" oligonucleotide. In contrast, TFO without NLS cleaved the target only in the presence of an excess of the "ballast.". These results may provide a new insight into the mechanism of intracellular transport of oligonucleotides.
RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 2 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:14411 CAPLUS
TI Fabrication of supported lipid bilayer arrays by microcontact printing for amperometric sensing of pore-forming bacterial toxins
AU Wang, Zhuangzhi; Cheng, Quan
CS Chemistry, University of California, Riverside, Riverside, CA, USA
SO Abstracts, 38th Western Regional Meeting of the American Chemical Society, Long Beach, CA, United States, October 15-18 (2003), 129 Publisher: American Chemical Society, Washington, D. C. CODEN: 69ETVX
DT Conference; Meeting Abstract
LA English
AB Pore-forming toxins are a group of bacterial ***protein*** toxins that exhibit their cytotoxicity by acting on the plasma membrane and permeablizing cells. These toxins selectively ***bind*** to cell membranes, punching holes into them that ultimately lead to cell lysis and death. In recent years, considerable research interests have been focused on the study of toxin-membrane interactions on supported lipid bilayer in an effort to design new biosensors for high throughput pharmaceutical anal. Fusion of ***vesicles*** onto hydrophilic surfaces has been used to create supported phospholipid bilayers, which provides simple models for biol. membranes with desirable properties such as fluidity and stability. However, applications of membrane-based biosensors are still scarce. In this work, we report fabrication and characterization of sensor arrays with supported lipid bilayer systems for pore-forming toxins. Two examples will be discussed on the application of supported lipid bilayers in sensing. The talk will also cover the general method of microcontact printing, the properties of pore-forming toxins, and the amperometric ***detection*** . Specifically, fabrication of supported lipid arrays by microcontact printing will be presented. In our work, new polydimethylsiloxane (PDMS) stamps were prepd. with an aluminum master by a casting, curing and peering procedure. By applying octadecanethiol (ODT) soln. onto PDMS stamps, we were able to print hydrophobic ODT patterns directly onto gold substrates. The highly oriented self-assembled hydrophobic ODT monolayers construct a pattern that is decorated with "wells" in dimensions of 100 .times. 100 .mu.m and 300 .mu.m apart. The patterned gold substrates were immersed into a 2-mercaptoethanol soln. to fill the "wells" with short chain alkanethiol that has hydrophilic terminals. ***Vesicles*** were prepd. by a procedure previously used in our group and applied on to the printed gold substrates. These ***vesicles*** fuses onto the substrates, forming a bipolar-hydrophilic phospholipid bilayer within the "wells" and a hydrophobic bilayer on ODT coated areas. The pore-forming process was investigated by cyclic voltammetry to monitor the surface redox properties of ***probes*** before and after applying the toxins onto the sensing interface. The results show a linear relationship between the Faradaic current of the ***probes*** and toxin concns.

L16 ANSWER 3 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:977179 CAPLUS
DN 140:248824
TI Phosphatidylinositol 3-phosphate is found in microdomains of early endosomes
AU Gillooly, David J.; Raiborg, Camilla; Stenmark, Harald
CS Institute for Cancer Research, Department of Biochemistry, The Norwegian Radium Hospital, Oslo, 0310, Norway
SO Histochemistry and Cell Biology (2003), 120(6), 445-453 CODEN: HCBIFP; ISSN: 0948-6143

PB Springer-Verlag
DT Journal
LA English
AB Phosphatidylinositol 3-phosphate [PI(3)P] is a phosphatidylinositol 3-kinase product whose localization is restricted to the limiting membranes of early endosomes and to the internal ***vesicles*** of multivesicular bodies. In this study the intracellular distribution of PI(3)P was compared with those of another phosphoinositide and a no. of endosomal ***proteins*** . Using a 2xFYVE ***probe*** specific for PI(3)P we found that PI(3)P is present in microdomains within the endosome membrane, whereas a phosphoinositide required for clathrin-mediated endocytosis, PI(4,5)P2, was only ***detected*** at the plasma membrane. The small GTPase Rab5 as well as the PI(3)P- ***binding*** ***proteins*** EEA1, SARA and CISK were found to be abundant within PI(3)P-contg. endosomal microdomains. In contrast, another PI(3)P- ***binding*** ***protein*** , Hrs, was found concd. in clathrin-coated endosomal microdomains with low levels of PI(3)P. While PI(3)P-contg. microdomains could be readily distinguished on enlarged endosomes in cells transfected with a constitutively active Rab5 mutant, such domains could also be ***detected*** in endosomes of non-transfected cells. We conclude that the membranes of early endosomes consist of microdomains in which PI(3)P and specific ***proteins*** are concd. These microdomains may be necessary for the assembly of distinct multimol. complexes that specify organelle identity, membrane trafficking and receptor signaling.
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 4 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:779627 CAPLUS
DN 140:140677
TI Protein and ***cDNA*** sequences of a 9.02-kilodalton human gas ***vesicle*** protein sequence homolog and their therapeutic uses
IN Mao, Yumin; Xie, Yi
PA Bode Gene Development Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 30 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI CN 1380305 A 20021120 CN 2001-105889 20010410
PRAI CN 2001-105889 20010410
AB The invention provides protein and ***cDNA*** sequences of a novel 9.02-kilodalton human protein, designated as "gas ***vesicle*** protein 9.02", which has sequence homol. with known gas ***vesicle*** protein. The invention relates to expression of gas ***vesicle*** protein sequence homolog in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against gas ***vesicle*** protein sequence homolog. The invention further relates to the uses of the gas ***vesicle*** protein sequence homolog in treatment of gas ***vesicle*** protein-related diseases (such as periodic paralysis, arrhythmia, bronchial asthma, peptic ulcer, diabetes mellitus, embryonic development, neoplasm).

L16 ANSWER 5 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:757448 CAPLUS
DN 139:273196
TI Methods and devices for ***detection*** and therapy of atheromatous plaque
IN Fischman, Alan; Hamblin, Michael R.; Tawakol, Ahmed; Hasan, Tayyaba; Muller, James; Anderson, Rox; Elmaleh, David R.; Daghighian, Farhad
PA The General Hospital Corporation, USA
SO PCT Int. Appl., 139 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE
PI WO 2003077723 A2 20030925 WO 2002-US38852 20021203 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003103995 A1 20030605 US 2002-163744 20020604 US 2003055307 A1 20030320 US 2002-215600 20020809 US 2003082105 A1 20030501 US 2002-215958 20020809 CA 2478248 AA 20030925 CA 2002-2478248 20021203
PRAI US 2002-365673P P 20020315 US 2002-163744 A 20020604 US 2002-215600 A 20020809 US 2002-215958 A 20020809 US 2002-216026 A 20020809 US 2001-295627P P 20010604 WO 2002-US38852 W 20021203
AB The present invention relates to devices for ***detection*** and therapy of active atheromatous plaque and/or thin-capped fibro-atheroma ('vulnerable plaque'), using selectively targeted fluorescent, radiolabeled, or fluorescent and radiolabeled compns. The present invention further relates to methods and devices for ***detection*** and therapy of active atheromatous plaques and/or vulnerable plaques, using selectively targeted compns., optionally comprising fluorescent and/or radiolabeled compns. An app. for ***detecting*** plaque in a blood vessel comprises a light emitter emitting light of a first wavelength and a light ***detector*** ***detecting*** light of a second wavelength; whereby a fluorescent compn. is administered to the blood vessel, the fluorescent

compn. localizes to the plaque, and light of the first wavelength causes the fluorescent compn. localized to the plaque to emit light having the second wavelength. The light emitter and light ***detector*** are included in a ***probe*** which is inserted into the blood vessel. A photosensitizer comprising chlorin e6 coupled to maleylated bovine serum albumin was prepd. and was shown to accumulate in macrophage-rich plaques of an animal model system analogous to vulnerable plaques in humans. An intravascular fluorescence catheter was efficiently localized to vulnerable plaque in a rabbit coronary artery and was then used to illuminate the plaque with light activating the chlorin e6 for photodynamic therapy.

L16 ANSWER 6 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:684914 CAPLUS
DN 139:346279
TI Probing the ***binding*** pocket and endocytosis of a G ***protein*** -coupled receptor in live cells reported by a spin-labeled substance P agonist
AU Shafer, Aaron M.; Bennett, Vicki J.; Kim, Phillip; Voss, John C.
CS Department of Biological Chemistry, University of California, Davis, CA, 95616, USA
SO Journal of Biological Chemistry (2003), 278(36), 34203-34210 CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB To ***probe*** the mol. nature of the ***binding*** pocket of a G ***protein*** -coupled receptor and the events immediately following the ***binding*** and activation, the authors have modified the substance P ***peptide*** , a potent agonist for the neurokinin-1 receptor, with a nitroxide spin ***probe*** specifically attached at Lys 3. The agonist properties and ***binding*** affinity of the spin-labeled substance P are similar to the native ***peptide*** . Using ESR spectroscopy, the substance P analog is capable of reporting the microenvironment found in the ***binding*** pocket of the receptor. The EPR spectrum of bound ***peptide*** indicates that the Lys 3 portion of the agonist is highly flexible. In addn., the authors ***detect*** a slight increase in the mobility of the bound ***peptide*** in the presence of a non-hydrolyzable analog of GTP, indicative of the alternate conformational states described for this class of receptor. The down-regulation of neurokinin-tachykinin receptors is accomplished by a rapid internalization of the activated ***protein*** . Thus, it was also of interest to establish whether spin-labeled substance P could serve as a real time reporter for endocytosis. The authors' findings show the receptor agonist is efficiently endocytosed and the loss of EPR signal upon internalization provides a real time monitor of endocytosis. The rapid loss of signal suggests that endosomal trafficking ***vesicles*** maintain a reductive environment. Whereas the reductive capacity of the lysosome has been established, the authors' findings indicate this capacity in early endosomes as well.
RE.CNT 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 7 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:605799 CAPLUS
DN 140:266940
TI A microfluidic biosensor based on ***nucleic*** ***acid*** sequence recognition
AU Kwakye, Sylvia; Baeumner, Antje
CS Department of Biological and Environmental Engineering, Cornell University, Ithaca, NY, 14853, USA
SO Analytical and Bioanalytical Chemistry (2003), 376(7), 1062-1068 CODEN: ABCNBP; ISSN: 1618-2642
PB Springer-Verlag
DT Journal
LA English
AB The development of a generic semi-disposable microfluidic biosensor for the highly sensitive ***detection*** of pathogens via their ***nucleic*** ***acid*** sequences is presented in this paper. Disposable microchannels with defined areas for capture and ***detection*** of target pathogen ***RNA*** sequence were created in polydimethylsiloxane (PDMS) and mounted onto a reusable polymethylmethacrylate (PMMA) stand. Two different ***DNA*** ***probes*** complementary to unique sequences on the target pathogen ***RNA*** serve as the biorecognition elements. For signal generation and amplification, one ***probe*** is coupled to dye encapsulated ***liposomes*** while the second ***probe*** is coupled to superparamagnetic beads for target immobilization. The ***probes*** ***hybridize*** to target ***RNA*** and the ***liposome*** -target-bead complex is subsequently captured on a magnet. The amt. of ***liposomes*** captured correlates directly to the concn. of target sequence and is quantified using a fluorescence microscope. Dengue fever virus serotype 3 sequences and ***probes*** were used as a model analyte system to test the sensor. ***Probe*** binding and target capture conditions were optimized for sensitivity resulting in a ***detection*** limit of as little as 10 amol .mu.L-1 (10 pmol L-1). Future biosensors will be designed to incorporate a mixer and substitute the fluorescence ***detection*** with an electrochem. ***detection*** technique to provide a truly portable microbiosensor system.
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 8 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:540129 CAPLUS
DN 139:303415
TI Senescence-associated ***mRNAs*** that may participate in signal transduction and protein trafficking
AU Guterman, Adi; Hajouj, Taleb; Gepstein, Shimon
CS Department of Biology, Technion-Israel Institute of Technology, Haifa, Israel

SO Physiologia Plantarum (2003), 118(3), 439-446 CODEN: PHPLAI; ISSN: 0031-9317
PB Blackwell Munksgaard
DT Journal
LA English
AB The differential display technique was used to generate ***cDNA*** ***probes*** in order to identify ***mRNAs*** that are up-regulated during senescence of Arabidopsis leaves. Three ***mRNAs*** were examd. that had not previously been assocd. with senescence. The steady-state levels of these ***mRNAs*** are ***detectable*** in small amts. in mature green leaves, but increase considerably as chlorophyll levels begin to decline. This relationship to senescence occurs under natural circumstances as well as when senescence is accelerated by leaf detachment in the dark or by addn. of 1-aminocyclopropane-1-carboxylic acid (ACC). Retardation of senescence by benzyladenine slows the increase of the ***mRNAs*** . One of these ***mRNAs*** appears to code for a protein (Sec 13) that may be involved in ***vesicle*** formation at the endoplasmic reticulum. Another ***mRNA*** codes for a protein with WD-repeat motif whose function is as yet unidentified, and the third codes for a putative calcium-dependent protein kinase. A fourth ***cDNA*** has also been cloned by subtractive ***hybridization*** from senescing Arabidopsis leaves that encodes vacuolar-processing enzyme (.gamma.VPE). Incubation of detached leaves in darkness also caused an abrupt elevation in the steady-state levels of the .gamma.VPE, similar to that of the senescing attached leaves. The possible functions of the gene products and their involvement in cellular and biochem. processes during senescence are discussed.
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 9 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:495859 CAPLUS
DN 139:130887
TI Isolation and growth factor inducibility of the Xenopus laevis Lmx1b gene
AU Haldin, Caroline E.; Nijjar, Sarjit; Masse, Karine; Barnett, Mark W.; Jones, Elizabeth A.
CS Cell and Molecular Development Group, Department of Biological Sciences, Warwick University, Coventry, UK
SO International Journal of Developmental Biology (2003), 47(4), 253-262 CODEN: IJDBE5; ISSN: 0214-6282
PB University of the Basque Country Press
DT Journal
LA English
AB This paper reports the cloning of the full length Xenopus laevis Lmx1b gene, Xlmx1b. Xlmx1b is a LIM homeodomain protein with high conservation to homologues identified in human, mouse, hamster and chick. In situ ***hybridization*** and RT-PCR anal. showed that Xlmx1b has a specific temporal expression pattern which can be sepd. into three main spatial domains. An Xlmx1b ***probe*** ***hybridized*** to regions of the nervous system from stage 13 onwards; these regions included the placodes and otic ***vesicles*** , the eye and specific sets of neurons. Sectioning of in situ ***hybridized*** embryos confirmed the location of transcripts as discreet regions of staining in ventrolateral regions of the neural tube. From stage 27, transcripts could be ***detected*** in the capsule of pronephric glomus. Finally, transcripts were ***detected*** by Northern blot anal. in the developing fore and hind limbs. Xlmx1b transcripts were also ***detected*** by Northern blot anal. in eye, brain, muscle and mesonephros tissue in metamorphosing tadpoles. RT-PCR anal. showed that zygotic expression of Xlmx1b is initiated at stage 10.5 and the temporal sequence of Xlmx1b expression is identical in both neural and presumptive pronephros regions. The effects of the growth factors activin A, retinoic acid (RA) and basic fibroblast growth factor (bFGF) on the regulation of Xlmx1b were also studied. Xlmx1b was found to be upregulated by activin A and RA inhibited this upregulation in a concn. dependent manner. In contrast, bFGF had no effect on the regulation of Xlmx1b.
RE.CNT 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 10 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:459092 CAPLUS
DN 139:193040
TI Effects of Phospholipid Composition on MinD-Membrane Interactions in Vitro and in Vivo
AU Mileykovskaya, Eugenia; Fishov, Itzhak; Fu, Xueyao; Corbin, Brian D.; Margolin, William; Dowhan, William
CS Department of Biochemistry and Molecular Biology, The University of Texas Medical School, Houston, TX, 77030, USA
SO Journal of Biological Chemistry (2003), 278(25), 22193-22198 CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The peripheral membrane ATPase MinD is a component of the Min system responsible for correct placement of the division site in Escherichia coli cells. By rapidly migrating from one cell pole to the other, MinD helps to block unwanted septation events at the poles. MinD is an amphitropic ***protein*** that is localized to the membrane in its ATP-bound form. A C-terminal domain essential for membrane localization is predicted to be an amphipathic .alpha.-helix with hydrophobic residues that interact with lipid acyl chains and cationic residues on the opposite face of the helix that interacts with the head groups of anionic phospholipids (Szeto, T. H., Rowland, S. L., Rothfield, L. I., and King, G. F. (2002) Proc. Natl. Acad. Sci. U. S. A. 99, 15693-15698). To investigate whether E. coli MinD displays a preference for anionic phospholipids, we first examd. the localization dynamics of a green fluorescent ***protein*** -tagged deriv. of MinD expressed in a mutant of E. coli that lacks phosphatidylethanolamine. In these cells, which contain only anionic phospholipids (phosphatidylglycerol and cardiolipin), green fluorescent ***protein*** -MinD assembled into dynamic focal clusters instead of the broad zones typical of cells with normal phospholipid content. In expts. with ***liposomes*** composed of only

zwitterionic, only anionic, or a mixt. of anionic and zwitterionic phospholipids, purified MinD bound to these ***liposomes*** in the presence of ATP with pos. cooperativity with respect to the ***protein*** concn. and exhibited Hill coeffs. of about 2. Oligomerization of MinD on the ***liposome*** surface also was ***detected*** by fluorescence resonance energy transfer between MinD mols. labeled with different fluorescent ***probes*** . The affinity of MinD-ATP for anionic ***liposomes*** as well as ***liposomes*** composed of both anionic and zwitterionic phospholipids increased 9- and 2-fold, resp., relative to zwitterionic ***liposomes*** . The degree of acyl chain unsatn. contributed pos. to ***binding*** strength. These results suggest that MinD has a preference for anionic phospholipids and that MinD oscillation behavior, and therefore cell division site selection, may be regulated by membrane phospholipid compn.
RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 11 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:423445 CAPLUS
DN 139:192085
TI Development of a rapid method using ***nucleic*** ***acid*** sequence-based amplification for the ***detection*** of astrovirus
AU Tai, Jennifer H.; Ewert, Matthew S.; Belliot, Gael; Glass, Roger I.; Monroe, Stephan S.
CS National Center for Infectious Diseases, Division of Viral and Rickettsial Diseases, Viral Gastroenteritis Section, Centers for Disease Control and Prevention, Atlanta, GA, G04 30333, USA
SO Journal of Virological Methods (2003), 110(2), 119-127 CODEN: JVMEDH; ISSN: 0166-0934
PB Elsevier Science B.V.
DT Journal
LA English
AB We have developed a rapid method to ***detect*** astrovirus in fecal specimens utilizing ***nucleic*** ***acid*** sequence-based amplification (NASBA) and several ***detection*** methodologies, including a sandwich ***hybridization*** assay based on ***DNA*** -tagged ***liposomes*** (***liposome*** -strip ***detection*** assay). ***RNA*** was extd. from 65 stool specimens that were pos. for astrovirus by enzyme immunoassay and was amplified by both NASBA and reverse transcriptase PCR (RT-PCR). Also extd. and amplified were 19 specimens contg. rotavirus, 20 specimens contg. norovirus, five specimens contg. adenovirus, 15 water neg. control specimens, and eight specimens contg. astrovirus ref. strains. NASBA products were ***detected*** by electrochemiluminescence ***detection*** (ECL) and by ***liposome*** -strip ***detection*** ; RT-PCR products were ***detected*** by ethidium bromide staining following gel electrophoresis and by liq. ***hybridization*** assay (LHA). There was no significant difference in the ***detection*** rates of NASBA- and RT-PCR-based assays, with one exception in which the NASBA/ECL assay ***detected*** astrovirus in eight specimens that tested neg. by the RT-PCR/LHA assay. These results suggest that these NASBA-based ***detection*** methods have ***detection*** rates that are as good as or better than those of RT-PCR-based methods. Both NASBA and ***liposome*** -strip ***detection*** may be useful for field studies and environmental testing because these methods are rapid and do not require specialized equipment.
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 12 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:421253 CAPLUS
DN 139:64381
TI Protein and ***cDNA*** sequences of a 31.46-kilodalton human synaptic ***vesicle*** protein sequence homolog and their therapeutic uses
IN Mao, Yumin; Xie, Yi
PA Bode Gene Development Co., Ltd., Shanghai, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 32 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI CN 1358753 A 20020717 CN 2000-127868 20001213
PRAI CN 2000-127868 20001213
AB The invention provides protein and ***cDNA*** sequences of a novel 31.46-kilodalton human protein, designated as "synaptic ***vesicle*** protein 31.46", which has sequence homol. with known synaptic ***vesicle*** protein. The invention relates to expression of synaptic ***vesicle*** protein sequence homolog in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against synaptic ***vesicle*** protein sequence homolog. The invention further relates to the uses of the synaptic ***vesicle*** protein sequence homolog in treatment of synaptic ***vesicle*** protein-related diseases (such as nervous system development disorder, paralysis, arrhythmia, bronchial asthma, peptic ulcer, and dementia).

L16 ANSWER 13 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:404634 CAPLUS
DN 139:256445
TI Biosensor for the specific ***detection*** of a single viable B. anthracis spore
AU Hartley, Harriet A.; Baeumner, Antje J.
CS Dept. of Biological and Environmental Engineering, Cornell University, Ithaca, NY, 14853-5701, USA
SO Analytical and Bioanalytical Chemistry (2003), 376(3), 319-327 CODEN: ABCNBP; ISSN: 1618-2642

PB Springer-Verlag
DT Journal
LA English
AB A simple membrane strip-based biosensor for the ***detection*** of viable B. anthracis spores was developed and combined with a spore germination procedure as well as a ***nucleic*** ***acid*** amplification reaction to identify as little as one viable B. anthracis spore in less than 12 h. The biosensor is based on identification of a unique ***mRNA*** sequence from the anthrax toxin activator (atxA) gene encoded on the toxin plasmid, pXO1. Preliminary work relied on plasmid vectors in both E. coli and B. thuringiensis expressing the atxA gene. Once the principle was firmly established, the vaccine strain of B. anthracis was used. After inducing germination and outgrowth of spores of B. anthracis (Sterne strain), ***RNA*** was extd. from lysed cells, amplified using ***nucleic*** ***acid*** sequence-based amplification (NASBA), and rapidly identified by the biosensor. While the biosensor assay requires only 15-min assay time, the overall process takes 12 h for the ***detection*** of as little as one viable B. anthracis spore, and is shortened significantly, if larger amts. of spores are present. The biosensor is based on an oligonucleotide sandwich-***hybridization*** assay format. It uses a membrane flow-through system with an immobilized oligonucleotide ***probe*** that ***hybridizes*** with the target sequence. Signal amplification is provided when the target sequence ***hybridizes*** to a second oligonucleotide ***probe*** that has been coupled to dye-encapsulating ***liposomes*** . The dye in the ***liposomes*** then provides a signal that can be read visually or quantified with a hand-held reflectometer. The biosensor can ***detect*** as little as 1.5 fmol of target ***mRNA*** . Specificity anal. revealed no cross reactivity with closely related species such as B. cereus, B. megaterium, B. subtilis, B. thuringiensis etc.
RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 14 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:338404 CAPLUS
DN 139:32304
TI Molecular cloning and expression analysis of ***cDNAs*** encoding androgenic gland hormone precursors from two porcellionidae species, Porcellio scaber and P. dilatatus
AU Ohira, Tsuyoshi; Hasegawa, Yuriko; Tominaga, Satoshi; Okuno, Atsuro; Nagasawa, Hiromichi
CS Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, 113-8657, Japan
SO Zoological Science (2003), 20(1), 75-81 CODEN: ZOSCEX; ISSN: 0289-0003
PB Zoological Society of Japan
DT Journal
LA English
AB Male sexual characteristics in Crustacea are induced by androgenic gland hormone (AGH), which is produced by the male-specific androgenic gland. Recently, AGH in the terrestrial isopod Armadillidium vulgare was characterized and its ***cDNA*** cloned, the first example in which the structure of AGH was elucidated. We report here the mol. cloning of ***cDNAs*** encoding AGH precursors from two addnl. terrestrial isopods, Porcellio scaber and P. dilatatus. ***CDNA*** fragments encoding Porcellio scaber AGH (Pos-AGH) and P. dilatatus AGH (Pod-AGH) were amplified by RT-PCR using degenerate oligonucleotide primers designed based on the amino acid sequence of A. vulgare AGH (Arv-AGH). Subsequently, full length ***cDNAs*** were obtained by 5'- and 3'-RACE. Both AGH precursors consisted of a signal peptide, B chain, C peptide and A chain, and exhibited the same organization as that of Arv-AGH. The amino acid sequences of the A and B chains, which comprise mature AGH peptide, were highly conserved among the three species, while that of the C peptide showed only low sequence similarity. In Northern blot anal., each ***cDNA*** fragment used as a ***probe*** specifically ***hybridized*** with a single band (0.75 kb) in ***mRNA*** extd. from whole male reproductive organs. In anal. of the tissue-specific gene expression of these two AGHs by RT-PCR, it was revealed that both AGH transcripts were ***detected*** only in ***cDNA*** synthesized using total ***RNA*** from the testis carrying the androgenic glands, but not in that from testis only, seminal ***vesicle*** , vas deferens, or hepatopancreas.
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 15 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:258818 CAPLUS
DN 138:249853
TI Protein and ***cDNA*** sequences of a 33.55-kilodalton human ***vesicle*** transport-associated protein P24-like protein and their therapeutic uses
IN Mao, Yumin; Xie, Yi
PA Shanghai Bode Gene Development Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 33 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI CN 1352028 A 20020605 CN 2000-127354 20001110
PRAI CN 2000-127354 20001110
AB The invention provides protein and ***cDNA*** sequences of a novel 33.55-kilodalton human protein, designated as " ***vesicle*** transport-assocd. protein P24 33.55", which has similar expression pattern to that of known ***vesicle*** transport-assocd. protein P24. The invention relates to expression of ***vesicle*** transport-assocd. protein P24-like protein in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against ***vesicle***

transport-assocd. protein P24-like protein. The invention further relates to the uses of the ***vesicle*** transport-assocd. protein P24-like protein in treatment of ***vesicle*** transport-assocd. protein P24-related diseases (such as neoplasm, blood disease, HIV infection, inflammation and immune disease).

L16 ANSWER 16 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:244789 CAPLUS
DN 138:232986
TI Protein and ***cDNA*** sequences of a 14.63-kilodalton human gene Sec1p protein-like protein and their therapeutic uses
IN Mao, Yumin; Xie, Yi
PA Shanghai Bode Gene Development Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 33 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI CN 1347909 A 20020508 CN 2000-125665 20001011
PRAI CN 2000-125665 20001011
AB The invention provides protein and ***cDNA*** sequences of a novel 14.63-kilodalton human protein, designated as "***vesicle*** protein 14.63", which has similar expression pattern to that of known gene Sec1p protein. The invention relates to expression of gene Sec1p protein-like protein in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against gene Sec1p protein-like protein. The invention further relates to the uses of the gene Sec1p protein-like protein in treatment of gene Sec1p protein-related diseases (such as Alzheimer's disease, nerve disease, neoplasm, growth disorder, inflammation, immune disease, blood disease, and HIV infection).

L16 ANSWER 17 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:204222 CAPLUS
DN 138:216523
TI Protein and ***cDNA*** sequences of a 9.79-kilodalton human synaptic ***vesicle*** protein-like protein and their therapeutic uses
IN Mao, Yumin; Xie, Yi
PA Shanghai Bode Gene Development Co., Ltd., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 33 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI CN 1347908 A 20020508 CN 2000-125662 20001011
PRAI CN 2000-125662 20001011
AB The invention provides protein and ***cDNA*** sequences of a novel 9.79-kilodalton human protein, designated as "synaptic ***vesicle*** protein 9.79", which has similar expression pattern to that of known synaptic ***vesicle*** protein. The invention relates to expression of synaptic ***vesicle*** protein-like protein in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against synaptic ***vesicle*** protein-like protein. The invention further relates to the uses of the synaptic ***vesicle*** protein-like protein in treatment of synaptic ***vesicle*** protein-related diseases (such as neoplasm, blood disease, HIV infection, immune disease, and inflammation).

L16 ANSWER 18 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:146858 CAPLUS
DN 138:164784
TI Protein and ***cDNA*** sequences of a 10.23-kilodalton human transport protein P24-like protein and their therapeutic uses
IN Mao, Yumin; Xie, Yi
PA Shanghai Biowindow Gene Development, Inc., Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 33 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI CN 1345830 A 20020424 CN 2000-125514 20000929
PRAI CN 2000-125514 20000929
AB The invention provides protein and ***cDNA*** sequences of a novel 10.23-kilodalton human protein, designated as "***vesicle*** transport protein P24 10.23", which has similar expression pattern to that of known transport protein P24. The invention relates to expression of transport protein P24-like protein in E. coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against transport protein P24-like protein. The invention further relates to the uses of the transport protein P24-like protein in treatment of transport protein P24-related diseases (such as neoplasm, blood disease, HIV infection, immune disease, and inflammation).

L16 ANSWER 19 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:142087 CAPLUS
DN 138:379859
TI ***RNA*** biosensor for the rapid ***detection*** of viable Escherichia coli in drinking water

AU Baeumner, Antje J.; Cohen, Richard N.; Miksic, Vonya; Min, Junhong
CS Department of Biological and Environmental Engineering, Cornell University, Ithaca, NY, 14853, USA
SO Biosensors & Bioelectronics (2003), 18(4), 405-413 CODEN: BBIOE4; ISSN: 0956-5663
PB Elsevier Science Ltd.
DT Journal
LA English
AB A highly sensitive and specific ***RNA*** biosensor was developed for the rapid ***detection*** of viable Escherichia coli as an indicator organism in water. The biosensor is coupled with protocols developed earlier for the extn. and amplification of ***mRNA*** mols. from E. coli [Anal. Biochem. 303 (2002) 186]. However, in contrast to earlier ***detection*** methods, the biosensor allows the rapid ***detection*** and quantification of E. coli ***mRNA*** in only 15-20 min. In addn., the biosensor is portable, inexpensive and very easy to use, which makes it an ideal ***detection*** system for field applications. Viable E. coli are identified and quantified via a 200 nt-long target sequence from ***mRNA*** (clpB) coding for a heat shock protein. For sample prepn., a heat shock is applied to the cells prior to disruption. Then, ***mRNA*** is extd., purified and finally amplified using the isothermal amplification technique ***Nucleic*** ***acid*** sequence-based amplification (NASBA). The amplified ***RNA*** is then quantified with the biosensor. The biosensor is a membrane-based ***DNA*** / ***RNA*** ***hybridization*** system using ***liposome*** amplification. The various biosensor components such as ***DNA*** ***probe*** sequences and concn., buffers, incubation times have been optimized, and using a synthetic target sequence, a ***detection*** limit of 5 fmol per sample was detd. An excellent correlation to a much more elaborate and expensive lab. based ***detection*** system was demonstrated, which can ***detect*** as few as 40 E. coli cfu/mL. Finally, the assay was tested regarding its specificity; no false pos. signals were obtained from other microorganisms or from nonviable E. coli cells.
RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 20 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:129230 CAPLUS
DN 138:236575
TI Expression of Complement 3 and Complement 5 in Newt Limb and Lens Regeneration
AU Kimura, Yuko; Madhavan, Mayur; Call, Mindy K.; Santiago, William; Tsonis, Panagiotis A.; Lambris, John D.; Del Rio-Tsonis, Katia
CS Department of Pathology and Laboratory Medicine, Protein Chemistry Laboratory, University of Pennsylvania School of Medicine, Philadelphia, PA, 19104, USA
SO Journal of Immunology (2003), 170(5), 2331-2339 CODEN: JOIMA3; ISSN: 0022-1767
PB American Association of Immunologists
DT Journal
LA English
AB Some urodele amphibians possess the capacity to regenerate their body parts, including the limbs and the lens of the eye. The mol. pathway(s) involved in urodele regeneration are largely unknown. The authors have previously suggested that complement may participate in limb regeneration in axolotls. To further define its role in the regenerative process, the authors examd. the pattern of distribution and spatiotemporal expression of two key components, C3 and C5, during limb and lens regeneration in the newt Notophthalmus viridescens. First, the authors cloned newt ***cDNAs*** encoding C3 and C5 and have generated Abs specifically recognizing these mols. Using these newt-specific ***probes*** , they found by in situ ***hybridization*** and immunohistochem. anal. that these mols. are expressed during both limb and lens regeneration, but not in the normal limb and lens. The C3 and C5 proteins were expressed in a complementary fashion during limb regeneration, with C3 being expressed mainly in the blastema and C5 exclusively in the wound epithelium. Similarly, during the process of lens regeneration, C3 was ***detected*** in the iris and cornea, while C5 was present in the regenerating lens ***vesicle*** as well as the cornea. The distinct expression profile of complement proteins in regenerative tissues of the urodele lens and limb supports a nonimmunol. function of complement in tissue regeneration and constitutes the first systematic effort to dissect its involvement in regenerative processes of lower vertebrate species.
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 21 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:8191 CAPLUS
DN 138:34169
TI Protein and ***cDNA*** sequences of a novel human GVPc (gas ***vesicle*** protein) protein sequence homolog and therapeutic use thereof
IN Mao, Yumin; Xie, Yi
PA Bode Gene Development Co., Ltd., Shanghai, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 30 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI CN 1339473 A 20020313 CN 2000-119665 20000821
PRAI CN 2000-119665 20000821
AB The invention provides protein and ***cDNA*** sequences of a novel 8.91-kilodalton human protein, designated as "GVPc (gas ***vesicle*** protein) protein 8.91", which has sequence homol. with known GVPc (gas ***vesicle*** protein) protein GVPc. The invention relates to expression of GVPc (gas ***vesicle*** protein) protein in E.coli BL21(DE3)plySs transfected with plasmid pET-

28(+). The invention also relates to prepn. of antibody against GVPc (gas ***vesicle*** protein) protein. The invention further relates to the uses of the GVPc (gas ***vesicle*** protein) protein fragment as ***probes*** in diagnosis, and in treatment of GVPc (gas ***vesicle*** protein) protein-related diseases (such as neoplasm, blood disease, HIV infection, immune disease, inflammation).

L16 ANSWER 22 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:905714 CAPLUS
DN 138:1040
TI BMPR1A gene involvement in familial juvenile polyposis (JP) and method of diagnosing by ***detecting*** mutation in BMPR1A
IN Howe, James R.
PA University of Iowa Research Foundation, USA
SO PCT Int. Appl., 108 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002094084 A2 20021128 WO 2002-US16053 20020521 WO 2002094084 A3 20030522 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2003072758 A1 20030417 US 2002-153217 20020521
PRAI US 2001-292691P P 20010521
AB The invention concerns familial juvenile polyposis (JP) which is an autosomal dominant disease characterized by a predisposition to harmful polyps and gastrointestinal cancer. The present invention shows that JP families carry germline mutations in BMPR1A, a gene located at 10q22-23. Methods and compns. for the ***detection*** and amelioration of FJP and gastrointestinal tumors are provided.

L16 ANSWER 23 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:861142 CAPLUS
DN 138:334796
TI The cytoskeleton as a modulator of gastric secretion
AU Ammar, David A.; Forte, John G.
CS Dept. of Molecular and Cell Biology, University of California, Berkeley, CA, 94720, USA
SO Mechanisms and Consequences of Proton Transport, [International Proton Transport Conference], 9th, Leura, Australia, Aug. 19-21, 2001 (2002), Meeting Date 2001, 317-326. Editor(s): Urushidani, Tetsuro; Forte, John G.; Sachs, George. Publisher: Kluwer Academic Publishers, Norwell, Mass. CODEN: 69DGWO; ISBN: 1-4020-7059-4
DT Conference
LA English
AB Within the gastric parietal cell, actin and the membrane-cytoskeletal linker ***protein*** ezrin are localized to the apical canalicular membrane. Drugs that inhibit the translocation of H+,K+-ATPase (HK) contg. tubulovesicles can also have the effect to disrupt either the actin cytoskeleton or membrane localization of ezrin. In order to investigate actin turnover in the stimulated parietal cell, we have investigated the effects of Latrunculin B (Lat B), which ***binds*** to and sequesters monomeric actin. In isolated gastric glands, relatively high concns. of Lat B were required to inhibit acid accumulation (ED50 .apprx.70 .mu.M). In resting cultured parietal cells, there were only minor effects on morphol. and F-actin staining up to 50 .mu.M Lat B. When stimulated in the presence of low Lat B (0.1-1 .mu.M), parietal cells have reduced lamellipodia formation and some aberrant punctate phalloidin-stained structures, but translocation of HK and vacuolar swelling appeared unaffected at these concns. Higher Lat B (10-50 .mu.M) resulted in punctate phalloidin-stained structures throughout the cell and nucleus as well as reduced translocation of HK and vacuolar swelling. When resting cells were treated with up to 50 .mu.M Lat B, but washed immediately before stimulation, they exhibited a normal stimulated morphol. These data suggest distinct pools of parietal cell actin: a pool highly susceptible to Lat B primarily involved in motile function of cultured cells; and a Lat B-resistant pool, most likely microvillar filaments, that is essential for secretion. Furthermore, the stimulation process appears to accentuate the effects of Lat B, most likely through Lat B ***binding*** to monomer actin liberated by the turnover of the motile actin filament pool. We have also developed a permeabilized gland system in order to study the mechanisms involved in tubulovesicle translocation. Pores formed by streptolysin-O (SLO) allow mols. of up to 500 kDa to pass through the cell membrane. Glands are permeabilized to the extent that exogenously added fluorescently-labeled actin incorporates into the cytoskeleton in a pattern that mimics endogenous F-actin. SLO-permeabilized glands are stimulated to secrete acid by the addn. of cAMP and ATP and are inhibited by proton pump inhibitors. Direct visualization using Lysosensor as a fluorescent pH ***probe*** shows accumulation of acid in the glandular lumen and in parietal cell canaliculi. The SLO-permeabilized gland model presented us with a new way to study the effects of the kinase inhibitors ME-3407 and wortmannin on both ezrin and acid secretion. After SLO glands were stimulated for 20 min at 37.degree.C, very little of the cellular actin can be ***detected*** in the extracellular medium, and staining of SLO glands with fluorescent phalloidin indicates a typical cytoskeletal structure. In contrast, stimulation of SLO glands occurs even while most of the ezrin is lost to the extracellular medium. While immunofluorescence anal. indicates a redn. in ezrin staining in SLO glands as compared to intact prepns., the remaining ezrin is still localized to the apical canalicular surface. ME-3407, an anti-ulcer drug whose inhibitory action has been implicated to involve ezrin, inhibited AP uptake in intact and SLO-glands, and effectively released ezrin from both. By contrast, wortmannin, an effective inhibitor of secretion in intact glands, had minimal effects on either ezrin or AP accumulation in SLO-glands. Taken together, this suggests that if ME-3407 and

wortmannin inhibit acid secretion by actin as kinase inhibitors, they have different targets in the ***protein*** kinase-signaling pathway of the parietal cell. This raises the possibility that either the residual ezrin in control- and wortmannin-treated parietal cells is adequate for the activation process, or that ezrin is not required for activation and ME-3407 therefore affects ezrin as well as some other crit. kinase activity.
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 24 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:814160 CAPLUS
DN 137:323728
TI Methylation-silenced SOCS-1, SOCS-2, SOSC-3 and CIS-2 gene expression associated with cancer and their use in diagnosis and treatment
IN Herman, James G.; Yoshikawa, Hirohide; Harris, Curtis C.
PA The Johns Hopkins University School of Medicine, USA; National Cancer Institute
SO PCT Int. Appl., 107 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002083705 A1 20021024 WO 2002-US11790 20020415 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-283709P P 20010413
AB Methods are provided for identifying a cell exhibiting unregulated growth assocd. with methylation-silenced transcription of a suppressor of cytokine signaling (SOCS)/cytokine-inducible SH2 protein (CIS) family member (SOCS/CIS) gene such as the SOCS-1 gene. In addn., methods of treating a cancer patient, wherein cancer cells in the patient exhibit methylation-silenced transcription of SOCS/CIS gene such as a SOCS-1 gene, are provided, as are reagents for practicing such methods.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 25 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:760459 CAPLUS
DN 137:243115
TI Protein and ***cDNA*** sequences of a novel human gas ***vesicle*** protein gvpA-gvpD-41 and therapeutic use thereof
IN Mao, Yumin; Xie, Yi
PA Bode Gene Development Co., Ltd., Shanghai, Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 32 pp. CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI CN 1331110 A 20020116 CN 2000-116920 20000630
PRAI CN 2000-116920 20000630
AB The invention provides protein and ***cDNA*** sequences of a novel human protein, designated as "gas ***vesicle*** protein gvpA-gvpD-41", which has similar sequence homol. with known human gas ***vesicle*** protein gvpA-gvpD family members. The invention relates to expression of gas ***vesicle*** protein gvpA-gvpD-41 in E.coli BL21(DE3)plySs transfected with plasmid pET-28(+). The invention also relates to prepn. of antibody against gas ***vesicle*** protein gvpA-gvpD-41. The invention further relates to the uses of the gas ***vesicle*** protein gvpA-gvpD-41 fragment as ***probes*** in diagnosis, and in treatment of gas ***vesicle*** protein gvpA-gvpD-41-related diseases (such as development malformation) and in research of aquatic sports.

L16 ANSWER 26 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:640486 CAPLUS
DN 138:22452
TI SNAREs in native plasma membranes are active and readily form core complexes with endogenous and exogenous SNAREs
AU Lang, Thorsten; Margittai, Martin; Holzler, Helmut; Jahn, Reinhard
CS Department of Neurobiology, Max Planck Institute for Biophysical Chemistry, Gottingen, D-37077, Germany
SO Journal of Cell Biology (2002), 158(4), 751-760 CODEN: JCLBA3; ISSN: 0021-9525
PB Rockefeller University Press
DT Journal
LA English
AB During neuronal exocytosis, the ***vesicle*** -bound sol. NSF attachment ***protein*** (SNAP) receptor (SNARE) synaptobrevin 2 forms complexes with the plasma membrane-bound SNAREs syntaxin 1A and SNAP25 to initiate the fusion reaction. However, it is not known whether in the native membrane SNAREs are constitutively active or whether they are unable to enter SNARE complexes unless activated before membrane fusion. Here we used ***binding*** of labeled recombinant SNAREs to inside-out carrier supported plasma membrane sheets of PC12 cells to ***probe*** for the activity of endogenous SNAREs. ***Binding***

was specific, saturable, and depended on the presence of membrane-resident SNARE partners. Our data show that virtually all of the endogenous syntaxin 1 and SNAP-25 are highly reactive and readily form SNARE complexes with exogenously added SNAREs. Furthermore, complexes between endogenous SNAREs were not ***detectable*** when the membranes are freshly prepd., but they slowly form upon prolonged incubation in vitro. We conclude that the activity of membrane-resident SNAREs is not downregulated by control ***proteins*** but is constitutively active even if not engaged in fusion events.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 27 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:368652 CAPLUS
DN 136:364878
TI Screening genes involved in vertebrate nerve formation: discovery of the Xenopus Ran protein gene expressed during embryogenesis
IN Asashima, Makoto; Onuma, Yasuko
PA Japan Science and Technology Corporation, Japan
SO PCT Int. Appl., 29 pp. CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002038762 A1 20020516 WO 2001-JP2764 20010330 W: CA, US JP 2002142769 A2 20020521 JP 2000-339681 20001107
PRAI JP 2000-339681 A 20001107
AB A method of screening genes specifically expressed in the vertebrate head or nerve at the early development stage and specific to the nerve formation, and ***cDNA*** and amino acid sequences of a gene identified by the method, are disclosed. Diagnostic ***probes*** for neuronal formation abnormality is claimed. A ***cDNA*** library prepd. from cells capable of inducing the head structure, which are obtained by treating a non-prospective germ layer piece of a Xenopus-origin blastula with 100 ng/mL of activin for 1 h and then pre-incubating for 7 to 10 h, is ***hybridized*** with [32P]-labeled ***cDNA*** which is prepd. in the same manner from a gastrula at the stage before the formation of the nerve induction (stage 10). ***Hybridization*** method such as subtractive ***hybridization*** , differential screening, or differential display are used. Unhybridized clones (neg. clones) are selected and ***cDNAs*** of the obtained clones are subjected to the homol. examn. By eliminating known genes, a gene specific to the nerve formation of a vertebrate, which is expressed in the head structure at the early development stage, can be obtained. The authors isolated a Xenopus Ran ***cDNA*** and analyzed the pattern of expression of this gene during embryogenesis. Ran is expressed maternally and later in the CNS, neural crest, mesenchyme, eyes, and optic ***vesicles*** . However, expression is not ***detected*** in the somites or the notochord.
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 28 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:355929 CAPLUS
DN 137:58973
TI Denaturation of either Manduca sexta aminopeptidase N or Bacillus thuringiensis Cry1A toxins exposes ***binding*** epitopes hidden under nondenaturing conditions
AU Daniel, Anu; Sangadala, Sreedhara; Dean, Donald H.; Adang, Michael J.
CS Department of Biochemistry and Molecular Biology, University of Georgia, Athens, GA, 30602, USA
SO Applied and Environmental Microbiology (2002), 68(5), 2106-2112 CODEN: AEMIDF; ISSN: 0099-2240
PB American Society for Microbiology
DT Journal
LA English
AB The effect of ***polypeptide*** denaturation of B. thuringiensis Cry1A toxins or purified M. sexta 120-kDa aminopeptidase N on the specificities of their interactions was investigated. Ligand and dot blotting expts. were conducted with 125I-labeled Cry1Ac, Cry1Ac mutant 509QNR-AAA511 (QNR-AAA), or 120-kDa aminopeptidase N as the ***probe*** . Mutant QNR-AAA does not ***bind*** the N-acetylgalactosamine moiety on the 120-kDa aminopeptidase. Both 125I-Cry1Ac and 125I-QNR-AAA bound to 210- and 120-kDa ***proteins*** from M. sexta brush border membrane ***vesicles*** and purified 120-kDa aminopeptidase N on ligand blots. However, on dot blots 125I-QNR-AAA bound brush border ***vesicles*** but did not ***bind*** purified aminopeptidase except when aminopeptidase was denatured. In the reciprocal expt., 125I-aminopeptidase bound Cry1Ac, but did not ***bind*** QNR-AAA. 125I-aminopeptidase bound Cry1Ab to a limited extent but not the Cry1Ab domain I mutant Y153D or Cry1Ca. However, denatured 125I-aminopeptidase ***detected*** each Cry1A toxin and mutant but not Cry1Ca on dot blots. The same pattern of recognition occurred with native (nondenatured) 125I-aminopeptidase ***probe*** and denatured toxins as the targets. The broader pattern of toxin- ***binding*** ***protein*** interaction is probably due to ***peptide*** sequences being exposed upon denaturation. Putative Cry toxin- ***binding*** ***proteins*** identified by the ligand blot technique need to be investigated under native conditions early in the process of identifying ***binding*** ***proteins*** that may serve as functional toxin receptors.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 29 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:336047 CAPLUS

DN 137:59085
TI Single molecule recognition of ***protein*** ***binding*** epitopes in brush border membranes by force microscopy
AU Wielert-Badt, Susanne; Hinterdorfer, Peter; Gruber, Hermann J.; Lin, Jiann-Trzuo; Badt, Dirk; Wimmer, Barbara; Schindler, Hansgeorg; Kinne, Rolf K.-H.
CS Department of Epithelial Cell Physiology, Max-Planck-Institute for Molecular Physiology, Dortmund, 44227, Germany
SO Biophysical Journal (2002), 82(5), 2767-2774 CODEN: BIOJAU; ISSN: 0006-3495
PB Biophysical Society
DT Journal
LA English
AB Sidedness and accessibility of ***protein*** epitopes in intact brush border membrane ***vesicles*** were analyzed by ***detecting*** single mol. interaction forces using mol. recognition force microscopy in aq. physiol. solns. Frequent antibody-antigen recognition events were obsd. with a force microscopy tip carrying an antibody directed against the periplasmically located .gamma.-glutamyltrans- peptidase, suggesting a right side out orientation of the ***vesicles*** . Phlorizin attached to the tips bound to NA+/D-glucose cotransporter mols. present in the ***vesicles*** . The recognition was sodium dependent and inhibited by free phlorizin and D-glucose, and revealed an apparent KD of 0.2 .mu.M. ***Binding*** events were also obsd. with an antibody directed against the epitope aa603-aa630 close to the C terminus of the transporter. In the presence of phlorizin the probability of antibody ***binding*** was reduced but the most probable unbinding force fu = 100 pN remained unchanged. In the presence of D-glucose and sodium, however, both the ***binding*** probability and the most probable ***binding*** force (fu = 50 pN) were lower than in its absence. These studies demonstrate that mol. recognition force microscopy is a versatile tool to ***probe*** orientation and conformational changes of epitopes of membrane components during ***binding*** and trans-membrane transport.
RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 30 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:249102 CAPLUS
DN 137:150753
TI Amplified ***detection*** of single-base mismatches in ***DNA*** using micrograviметric quartz-crystal-microbalance transduction
AU Willner, Itamar; Patolsky, Fernando; Weizmann, Yossi; Willner, Bilha
CS Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem, 91904, Israel
SO Talanta (2002), 56(5), 847-856 CODEN: TLNTA2; ISSN: 0039-9140
PB Elsevier Science B.V.
DT Journal
LA English
AB Three different methods for the amplified ***detection*** of a single-base mismatch in ***DNA*** are described using micrograviметric quartz-crystal-microbalance as transduction means. All methods involve the primary incorporation of a biotinylated base complementary to the mutation site in the analyzed double-stranded primer/ ***DNA*** assembly. The double-stranded assembly is formed between 25 complementary bases of the ***probe*** ***DNA*** assembled on the Au-quartz crystal and the target ***DNA*** . One method of amplification includes the assocn. of avidin- and biotin-labeled ***liposomes*** to the sensing interface. The second method of amplified ***detection*** of the base mismatch includes the assocn. of an Au-nanoparticle-avidin conjugate to the sensing interface, and the secondary Au-nanoparticle- catalyzed deposition of gold on the particles. The third amplification route includes the binding of the avidin-alk. phosphatase biocatalytic conjugate to the double-stranded surface followed by the oxidative hydrolysis of 5-bromo-4-chloro-3-indolyl phosphate to the insol. product indigo deriv. that ppts. on the transducer. Comparison of the three amplification routes reveals that the catalytic deposition of gold on the Au-nanoparticle/avidin conjugate is the most sensitive method, and the single-base mismatch in the analyzed ***DNA*** is ***detected*** with a sensitivity that corresponds to 3.times.10-16 M.
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 31 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:248498 CAPLUS
DN 137:120559
TI ***RNA*** replication of mouse hepatitis virus takes place at double-membrane ***vesicles***
AU Gosert, Rainer; Kanjanahaluethai, Amornrat; Egger, Denise; Bienz, Kurt; Baker, Susan C.
CS Institute for Medical Microbiology, University of Basel, Basel, Switz.
SO Journal of Virology (2002), 76(8), 3697-3708 CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB The replication complexes (RCs) of pos.-stranded ***RNA*** viruses are intimately assocd. with cellular membranes. To investigate membrane alterations and to characterize the RC of mouse hepatitis virus (MHV), biochem. and ultrastructural studies were performed using MHV-infected cells. Biochem. fractionation showed that all 10 of the MHV gene 1 polyprotein products examd. pelleted with the membrane fraction, consistent with membrane assocn. of the RC. Furthermore, MHV gene 1 products p290, p210, and p150 and the p150 cleavage product membrane protein 1 (MP1, also called p44) were resistant to extn. with Triton X-114, indicating that they are integral membrane proteins. The ultrastructural anal. revealed double-membrane ***vesicles*** (DMVs) in the cytoplasm of MHV-infected cells. The DMVs were found either as sep. entities or as small clusters of ***vesicles*** . To det.

whether MHV proteins and viral ***RNA*** were assocd. with the DMVs, we performed immunocytochem. electron microscopy (IEM). The DMVs were labeled using an antiserum directed against proteins derived from open reading frame 1a of MHV. By electron microscopy in situ ***hybridization*** (ISH) using MHV-specific ***RNA*** ***probes*** , DMVs were highly labeled for both gene 1 and gene 7 sequences. By combined ISH and IEM, pos.-stranded ***RNA*** and viral proteins localized to the same DMVs. Finally, viral ***RNA*** synthesis was ***detected*** by labeling with 5-bromouridine 5'-triphosphate. Newly synthesized viral ***RNA*** was found to be assocd. with the DMVs. Thus, the DMVs carry the MHV ***RNA*** replication complex and are the site of MHV ***RNA*** synthesis.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 32 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:241009 CAPLUS
DN 136:243996
TI Biochips for tissue microarray profiles and uses thereof
IN Muraca, Patrick J.
PA Clinomics Laboratories, Inc., USA
SO PCT Int. Appl., 70 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002024952 A1 20020328 WO 2001-US28906 20010917 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2002168639 A1 20021114 US 2001-781021 20010209 AU 2001090990 A5 20020402 AU 2001-90990 20010917
PRAI US 2000-234493P P 20000922 US 2001-781021 A 20010209 WO 2001-US28906 W 20010917
AB The invention provides a profile array substrate comprising a first location for placing and retaining a test tissue sample, and a second location comprising a microarray. The microarray comprises a plurality of sublocations, each sublocation comprising a control tissue sample with known biol. characteristics. Placement of the test tissue sample on the profile array substrate at the first location, permits a side-by-side comparison of the biol. characteristics of a test tissue at the first location with the biol. characteristics of tissues within the microarray.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 33 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:213758 CAPLUS
DN 136:213171
TI ***Liposome*** -enhanced test device and method
IN Durst, Richard Allen; Montagna, Richard A.; Baumner, Antje J.; Siebert, Sui Ti A.; Rule, Geoffrey S.
PA Cornell Research Foundation, Inc., USA; Innovative Biotechnologies International, Inc.
SO U.S., 30 pp., Cont.-in-part of U.S. 5,958,791. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 4 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI US 6358752 B1 20020319 US 1999-315576 19990520 US 5958791 A 19990928 US 1996-722901 19960927 WO 2000072019 A2 20001130 WO 2000-US13592 20000518 WO 2000072019 A3 20010913 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1996-722901 A2 19960927 US 1998-86190P P 19980521 US 1998-106122P P 19981029 US 1999-315576 A 19990520
AB A test device and method for ***detecting*** or quantifying an analyte in a test sample employs an interdigitated electrode array and electroactive marker-encapsulating ***liposomes*** for signal generation and ***detection*** . The test device includes a contact portion on a first absorbent material, a capture portion either on the first absorbent material, or on a second absorbent material in fluid flow contact with the first absorbent material. The capture portion has a binding material specific for a portion of the analyte bound thereto. The device further includes an electrode array including first and second conductors each having a plurality of fingers, wherein the fingers of the conductors are interdigitated. The electrode array is positioned to induce redox cycling of an electroactive marker released either in or beyond the capture portion, depending upon whether direct (proportional) or indirect (inversely proportional) ***detection*** or measurement is desired. In the method of the invention, the test sample is applied to the contact portion, and allowed to migrate along the absorbent material(s) into the capture portion. Either before or after the migration, the test sample is contacted with a conjugate of ***liposomes*** and a second binding material for the analyte. To the extent that analyte is present in the sample, the conjugate is bound in the capture portion. By applying a voltage across the conductors, redox cycling of the marker is induced and a current is generated.

RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 34 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:185316 CAPLUS
DN 136:242986
TI Protein and ***cDNA*** sequences of a novel human guanine-nucleotide exchange factor sequence homolog and uses thereof
IN Glucksmann, Maria Alexandra
PA Millennium Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 134 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002020765 A2 20020314 WO 2001-US28337 20010910 WO 2002020765 A3 20030306 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG AU 2001088999 A5 20020322 AU 2001-88999 20010910 US 2002142464 A1 20021003 US 2001-950491 20010910
PRAI US 2000-231089P P 20000908 WO 2001-US28337 W 20010910
AB The invention provides protein and ***cDNA*** sequences of a novel human protein, designated 38646, which has sequence homol. with guanine-nucleotide exchange factor. The invention also provides antisense ***nucleic*** ***acid*** mols., recombinant expression vectors contg. 38646 ***nucleic*** ***acid*** mols., host cells into which the expression vectors have been introduced, and non-human transgenic animals in which a 38646 gene has been introduced or disrupted. The invention still further provides isolated 38646 proteins, fusion proteins, antigenic peptides and anti-38646 antibodies. Diagnostic methods utilizing compns. of the invention are also provided. 38646 expression and activity can be modulated to affect cell shape, motility, cytoskeleton organization, and intracellular protein and ***vesicle*** localization or to affect the tensile strength or integrity of a tissue.

L16 ANSWER 35 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:151007 CAPLUS
DN 136:339387
TI Specific Granules of Human Eosinophils Have Lysosomal Characteristics: Presence of Lysosome-Associated Membrane ***Proteins*** and Acidification upon Cellular Activation
AU Persson, Terese; Calafat, Jero; Janssen, Hans; Karawajczyk, Malgorzata; Carlsson, Sven R.; Egesten, Arne
CS Department of Medical Microbiology, Lund University, Malmoe University Hospital, Malmoe, Swed.
SO Biochemical and Biophysical Research Communications (2002), 291(4), 844-854 CODEN: BBRCA9; ISSN: 0006-291X
PB Academic Press
DT Journal
LA English
AB Eosinophils possess characteristic specific granules. Their content may be important during host defense but it can also cause damage after release at sites of inflammation. The authors investigated possible lysosomal characteristics of these granules. Lysosome-assocd. membrane ***protein*** (LAMP)-1 and 2, were ***detected*** by Western blot, subcellular fractionation, and immunoelectron microscopy (IEM) and were localized to the membrane of specific granules and in ***vesicles*** of the cytoplasm, sep. from secretory ***vesicles*** . No ***binding*** of mannose 6-phosphate receptor to ***proteins*** of specific granules could be ***detected*** , indicating that they are dephosphorylated and mature. Cellular activation by interleukin-5 caused acidification of specific granules, as ***detected*** by pH-dependent ***probes*** . The acidification was inhibited by concanamycin A (inhibitor of vacuolar H+-ATPase). Activation of eosinophils by serum-treated zymosan (STZ) caused degranulation into STZ-contg. phagosomes and incorporation of LAMPs to their membranes. In conclusion, specific granules of eosinophils can be regarded as specialized primary lysosomes, a feature that may be important for their function and integrity. (c) 2002 Academic Press.
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 36 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:123653 CAPLUS
DN 136:242421
TI Biosensor for Dengue virus ***detection*** : Sensitive, rapid, and serotype specific
AU Baeumner, Antje J.; Schlesinger, Nicole A.; Slutzki, Naomi S.; Romano, Joseph; Lee, Eun Mi; Montagna, Richard A.
CS Department of Biological and Environmental Engineering, Cornell University, Ithaca, NY, USA
SO Analytical Chemistry (2002), 74(6), 1442-1448 CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB A serotype-specific ***RNA*** biosensor was developed for the rapid ***detection*** of Dengue virus (serotypes 1-4) in blood samples. After ***RNA*** amplification, the biosensor allows the rapid ***detection*** of Dengue virus ***RNA*** in only 15 min. In addn., the biosensor is portable, inexpensive, and very easy to use, making it an ideal ***detection*** system for

point-of-care and field applications. The biosensor is coupled to the isothermal ***nucleic*** ***acid*** sequence-based amplification (NASBA) technique with which small amts. of virus ***RNA*** are amplified using a simple water bath. During the NASBA reaction, a generic sequence is attached to all ***RNA*** mols. as described earlier (Wu, S. J.; Lee, E. M.; Putvatana, R.; Shurtliff, R. N.; Porter, K. R.; Suharyono, W.; Watt, D. M.; King, C. C.; Murphy, G. S.; Hayes, C. G.; Romano, J. W. J. Clin. Microbiol. 2001, 39, 2794-2798.). It has been shown earlier that Dengue virus can be ***detected*** specifically using two ***DNA*** ***probes*** : a first ***probe*** ***hybridized*** with the attached generic sequence and, therefore, bound to every amplified ***RNA*** mol.; and a second ***probe*** either bound to all four Dengue virus serotypes or chosen to be specific for only one serotype. These ***probes*** were utilized in the biosensor described in this publication. For a generic Dengue virus biosensor, the second ***probe*** is complementary to a conserved region found in all Dengue serotypes. For identification of the individual Dengue virus serotypes, four serotype-specific ***probes*** were developed (Wu, S. J.; Lee, E. M.; Putvatana, R.; Shurtliff, R. N.; Porter, K. R.; Suharyono, W.; Watt, D. M.; King, C. C.; Murphy, G. S.; Hayes, C. G.; Romano, J. W. J. Clin. Microbiol. 2001, 39, 2794-2798.). The biosensor is a membrane-based ***DNA*** / ***RNA*** ***hybridization*** system using ***liposome*** amplification. The generic ***DNA*** ***probe*** (reporter ***probe***) is coupled to the outside of dye-encapsulating ***liposomes*** . The conserved or Dengue serotype specific ***probes*** (capture ***probes***) are immobilized on a polyethersulfone membrane strip. ***Liposomes*** are mixed with amplified target sequence and are then applied to the membrane. The mixt. is allowed to migrate along the test strip, and the ***liposome*** -target sequence complexes are immobilized in the capture zone via ***hybridization*** of the capture ***probe*** with target sequence. The amt. of ***liposomes*** present in the immobilized complex is directly proportional to the amt. of target sequence present in the sample and can be quantified using a portable reflectometer. The different biosensor components have been optimized with respect to sensitivity and, foremost, specificity toward the different serotypes. An excellent correlation to a lab.-based ***detection*** system was demonstrated. Finally, the assay was tested using a limited no. of clin. human serum samples. Although Dengue serotypes 1, 2 and 4 were identified correctly, serotype 3 displayed low cross-reactivity with biosensors designed for ***detection*** of serotypes 1 and 4.
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 37 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:122962 CAPLUS
DN 136:163717
TI Novel hydroxyquinoline derivative fluorescent dyes and their biological applications
IN Diwu, Zhenjun; Liu, Jiaxing; Haugland, Richard P.; Gee, Kyle R.
PA Molecular Probes, Inc., USA
SO PCT Int. Appl., 110 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002012195 A1 20020214 WO 2001-US24479 20010804 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG CA 2417816 AA 20020214 CA 2001-2417816 20010804 AU 2001079185 A5 20020218 AU 2001-79185 20010804 EP 1311487 A1 20030521 EP 2001-957438 20010804 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2000-223086P P 20000804 WO 2001-US24479 W 20010804
OS MARPAT 136:163717
AB The present invention describes novel dyes, including coumarins, rhodamines, and rhodls that incorporate addnl. fused arom. rings. The dyes of the invention absorb at a longer wavelength than structurally similar dyes that do not possess the fused arom. rings. Many of the dyes of the invention are useful fluorescent dyes. The invention includes chem. reactive dyes, dye-conjugates, and the use of such dyes in staining samples and ***detecting*** ligands or other analytes.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 38 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:51751 CAPLUS
DN 136:112610
TI Assay method and system for identification of P2Y receptor agonists and antagonists
IN Harden, T. Kendall; Waldo, Gary L.; Blaesius, Rainer; Nicholas, Robert
PA University of North Carolina at Chapel Hill, USA
SO PCT Int. Appl., 50 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2002004955 A2 20020117 WO 2001-US21467 20010706 WO 2002004955 A3 20021205 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2414447 AA 20020117 CA 2001-2414447 20010706 EP 1301792 A2 20030416 EP 2001-952501 20010706 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR NZ 523523 A 20031031 NZ 2001-523523 20010706 US 2003175810 A1 20030918 US 2003-336608 20030103
PRAI US 2000-216618P P 20000707 WO 2001-US21467 W 20010706
AB A method and system for assaying P2Y receptors. The method allows for direct ***detection*** of ligand ***binding*** events with a high signal to noise ratio. The ability to quantify ***binding*** events involving the P2Y receptor has heretofore been unavailable due to unavoidable non-selective ***binding*** of a radioligand or other traditional ***probes*** . A cell-free system for the study of P2Y receptors including a P2Y receptors; optionally, a ***protein*** that is normally assocd. with the P2Y receptor in nature; and a ***vesicle*** , is also disclosed.

L16 ANSWER 39 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:20882 CAPLUS
DN 137:42452
TI A splice variant of glutamate transporter GLT1/EAAT2 expressed in neurons: cloning and localization in rat nervous system
AU Schmitt, A.; Asan, E.; Lesch, K.-P.; Kugler, P.
CS Institute of Anatomy and Cell Biology, University of Wurzburg, Wurzburg, D-97070, Germany
SO Neuroscience (Oxford, United Kingdom) (2002), 109(1), 45-61 CODEN: NRSCDN; ISSN: 0306-4522
PB Elsevier Science Ltd.
DT Journal
LA English
AB Rapid uptake of synaptically released glutamate via the high affinity glutamate transporter 1 (GLT1; EAAT2) is important for limiting transmitter signaling and prevents a harmful receptor overstimulation. So far, in the adult brain GLT1 ***protein*** has only been ***detected*** in astrocytes. Here, we describe the ***cDNA*** cloning of a variant of GLT1 from rat brain which is generated by alternative splicing at the 3'-end of the GLT1 ***cDNA*** . Reverse transcription-polymerase chain reaction revealed that the GLT1 variant message was present not only in brain, but also in peripheral organs. Northern blot anal. showed that in brain the ***mRNA*** of GLT1 (.apprx.11 kb) is predominant while in the retina the ***mRNA*** of GLT1 variant (.apprx.12.5 kb) prevails. In situ ***hybridization*** using cRNA and oligonucleotide ***probes*** , and immunocytochem. using an antibody against a synthetic GLT1v ***peptide*** were applied in order to identify the cell types expressing GLT1 variant in the adult rat nervous system. GLT1 variant is preferentially expressed in neurons of the CNS and PNS, but is also ***detected*** in glial cells (oligodendrocytes, ependymal cells, epithelial cells of the plexus choroideus, satellite cells, and Schwann cells). In contrast to GLT1, GLT1 variant was only occasionally ***detected*** in astrocytes. Immunolabelling revealed a preferentially cytoplasmic (frequently granular) staining of neurons and glial cells, suggesting a localization of GLT1 variant ***protein*** in ***vesicle*** membranes. The studies provide evidence that the cellular expression of the GLT1 variant in the CNS is almost complementary to that of GLT1 and that the GLT1 variant does not seem to be restricted to the CNS.
RE.CNT 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 40 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:835991 CAPLUS
DN 136:338514
TI Differential expression of the chromosome 11 mucin genes in colorectal cancer
AU Sylvester, Paul A.; Myerscough, Neil; Warren, Bryan F.; Carlstedt, Ingemar; Corfield, Anthony P.; Durdey, Paul; Thomas, Michael G.
CS Department of Surgery, Bristol Royal Infirmary, Bristol, B52 8HW, UK
SO Journal of Pathology (2001), 195(3), 327-335 CODEN: JPTLAS; ISSN: 0022-3417
PB John Wiley & Sons Ltd.
DT Journal
LA English
AB The 4 secretory mucin genes clustered on chromosome 11, MUC2, MUC5AC, MUC5B and MUC6, were screened in 37 patients with cancers in the left hemi-colon or rectum and 10 normal rectal controls. The mucin genes were ***detected*** by in situ ***hybridization*** using oligonucleotide ***probes*** to the variable no. tandem repeat (VNTR) sequences, while the proteins were stained with non-VNTR (MUC2, MUC5AC and MUC5B) or VNTR (MUC6) antibodies. Low levels of MUC2 ***mRNA*** were ***detected*** in non-mucinous adenocarcinomas (5/27) while a higher proportion of mucinous carcinomas (4/9) was pos. All 25 cases of adjacent normal tissue expressed MUC2 ***mRNA*** . No transcripts for MUC5AC, MUC5B or MUC6 were ***detected*** in any of these specimens. MUC2 protein product was ***detected*** immunohistochem. in 34/36 carcinoma specimens, with no change from normal controls. There was de novo expression of MUC5AC in 23/36 carcinomas. No MUC5B or MUC6 protein was ***detected*** . No difference in MUC2 and MUC5AC protein was found between mucinous and non-mucinous carcinomas. The level of MUC2 was increased in moderately differentiated cancers compared with normal controls and decreased in the poorly differentiated group. Decreased MUC2 was found in poorly differentiated compared with moderately differentiated tumors. More MUC5AC protein was ***detected*** in well and moderately differentiated tumors than in poorly differentiated tumors and in all tumors relative to controls. The pattern of MUC2 staining in cancers was different from control tissue, with strong staining in the perinuclear region and none in goblet cell ***vesicles*** . MUC5AC staining was mainly ***detected*** in the cytoplasm. Poor ***detection*** of MUC2 and MUC5AC ***mRNA*** and assocd. strong staining for the total protein suggests altered biosynthesis and processing, leading to the characteristic subcellular distribution. Hence, change in the synthesis of MUC2 and the de

nova appearance of MUC5AC in colorectal carcinomas may be significant events in the adenoma-carcinoma sequence, with possible implications for tumor prognosis.
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 41 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:817066 CAPLUS
DN 135:368894
TI Methods and kits using chemiluminescence and singlet oxygen photosensitizers for multiple analyte ***detection***
IN Pease, John S.; Cromer, Remy; Patel, Rajesh; Kurn, Nurith; De Kecze, Steve
PA Dade Behring Inc., USA
SO PCT Int. Appl., 87 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001084157 A2 20011108 WO 2001-US14528 20010503 WO 2001084157 A3 20030206 W: JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR EP 1305632 A2 20030502 EP 2001-933052 20010503 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR JP 2003532119 T2 20031028 JP 2001-581129 20010503
PRAI US 2000-564230 A 20000504 WO 2001-US14528 W 20010503
AB The invention concerns methods and compds. for the ***detecting*** relative amts. of two or more components in a medium. A combination is provided comprising a medium suspected of contg. the components, at least two sensitizer reagents and at least one reactive reagent capable of activation by singlet oxygen. The sensitizer reagents are capable of generating singlet oxygen and are distinguishable by wavelength of sensitization. The combination of sensitizer reagents and reactive reagents allows differential ***detection*** of the components. The sensitizer reagents are differentially activated. The amt. of signal generated as a result of the activation of said reactive reagent is detd. wherein the amt. thereof is related to the amt. of each of the components in the medium. Examples are given for the synthesis of chemiluminescent/photosensitizing compds. and their use in ***detection*** assays.

L16 ANSWER 42 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:731080 CAPLUS
DN 135:268152
TI Use of ***liposomes*** or micelles carrying reporter groups and affinity labels for ***nucleic*** ***acids*** for ***detection*** of ***hybridization***
IN Bosio, Andreas; Scheffold, Alexander
PA Memorec Medical Molecular Research Cologne Stoffel G.m.b.H., Germany
SO PCT Int. Appl., 23 pp. CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001073117 A1 20011004 WO 2001-EP3702 20010331 WO 2001073117 C2 20020718 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG EP 1268858 A1 20030102 EP 2001-929486 20010331 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR JP 2003528625 T2 20030930 JP 2001-570831 20010331 US 2003077636 A1 20030424 US 2002-239424 20020923
PRAI DE 2000-10016115 A 20000331 EP 2000-113549 A 20000627 WO 2001-EP3702 W 20010331
AB The invention relates to the use of particles, ***liposomes*** or micelles, with signal-emitting characteristics and at least one group with an affinity for labeled ***nucleic*** ***acids*** , for ***detecting*** labeled ***nucleic*** ***acids*** in hybrids with immobilized ***probes*** . The invention also relates to supports contg. particles which have signal-emitting characteristics and at least one group with an affinity for marked ***nucleic*** ***acids*** , for ***detecting*** labeled ***nucleic*** ***acids*** . The reporter group may be a fluorescent dye and the affinity label may be an antibody against a hapten incorporated into the ***nucleic*** ***acid*** such as biotin or digoxigenin. The use of biotin and digoxigenin and biotin as haptens and Cy3 and Cy5 as reporter dyes is demonstrated.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 43 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:730817 CAPLUS
DN 135:268198
TI Sequences of human oncogenic osteomalacia-related ***protein*** 1 (OOM-1) and therapeutic uses thereof
IN Schiavi, Susan; Madden, Stephen; Manavalan, Parthasarathy; Levine, M. D. Michael; Jan De Beur, Suzanne
PA Genzyme Corporation, USA; Johns Hopkins University
SO PCT Int. Appl., 65 pp. CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001072826 A2 20011004 WO 2001-US9289 20010322 WO 2001072826 A3 20020523 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 2002102641 A1 20020801 US 2001-814550 20010322
PRAI US 2000-191786P P 20000324 US 2000-241598P P 20001019
AB The invention provides sequences of ***protein*** and ***cDNA*** of human oncogenic osteomalacia-related ***protein*** (OOM-1). The invention also provides expression systems, including gene delivery vehicles such as ***liposomes*** and vectors, and host cells contg. the polynucleotides. The present invention further provides ***proteins*** encoded by the polynucleotides, antisense oligonucleotides, antibodies that specifically recognize and ***bind*** to these ***proteins*** , as well as hybridoma cell lines. In particular, the invention discloses that the ***proteins*** are involved in modulating bone mineralization and phosphate metab. The invention also provides methods of monitoring expression of the gene and ***detecting*** neoplastic cells assocd. with oncogenic osteomalacia. The invention discloses methods for modulating bone mineralization activity and phosphate metab. as well as methods for treating diseases related to abnormal bone mineralization and abnormal phosphate metab.

L16 ANSWER 44 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:598219 CAPLUS
DN 135:164454
TI Fluorometric ***detection*** of ***binding*** of charged species using pH- or potential-sensitive ***probes***
IN Barenholz, Yechezkel; Hirsch-Lerner, Danielle; Cohen, Rivka; Dagan, Arie; Gatt, Shimon
PA Yissum Research Development Company, Israel
SO PCT Int. Appl., 39 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001059156 A2 20010816 WO 2001-IL134 20010209 WO 2001059156 A3 20020328 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 2002012923 A1 20020131 US 2001-780757 20010208 CA 2399911 AA 20010816 CA 2001-2399911 20010209 EP 1257828 A2 20021120 EP 2001-904299 20010209 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI US 2000-181693P P 20000210 WO 2001-IL134 W 20010209
AB The present invention includes a method for detg. ***binding*** of a species at a surface having a local environment at a given pH or surface potential, where the ***binding*** is effective to alter the pH or potential. In accordance with the method, a ***probe*** which comprises a pH- or potential-sensitive fluorophore is stably incorporated at the surface, and a change in a fluorescent property of the fluorophore is obsd. upon ***binding*** (or dissocn.) of the species at the surface, due to a change in surface potential or pH. The method thus ***detects*** changes in the environment of the ***probe*** , not necessarily dependent on interactions of the ***probe*** with a specific mol. Both specific and non-specific interactions at the surface can be ***detected*** .

L16 ANSWER 45 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:545896 CAPLUS
DN 135:133154
TI Sixty-six prostate cancer associated genes and their products
IN Rees, Robert Charles; Li, Geng; Mian, Shahid
PA The Nottingham Trent University, UK
SO PCT Int. Appl., 42 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001053524 A2 20010726 WO 2001-GB188 20010118 WO 2001053524 A3 20020314 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2397910 AA 20010726 CA 2001-2397910

20010118 EP 1250457 A2 20021023 EP 2001-901262 20010118 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR US 2003180738 A1 20030925 US 2002-181447 20021113
PRAI GB 2000-993 A 20000118 WO 2001-GB188 W 20010118
AB The application discloses cancer-assocd. genes and their products, esp. those identifiable by serol. identification of antigens by recombinant expression cloning (SEREX). The genes and products are used to identify, track and treat cancer. Preferably the cancer is prostate cancer. ***CDNA*** expression libraries were constructed from prostate cancer tissues and the inserted ***cDNA*** was evaluated by restriction mapping. The invention also disclosed mutations identified in a few of the cloned cancer-assocd. genes.

L16 ANSWER 46 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:489442 CAPLUS
DN 135:103373
TI Protein and ***cDNA*** of a human gas ***vesicle*** protein sequence homolog and therapeutic use thereof
IN Mao, Yumin; Xie, Yi
PA Fudan University, Peop. Rep. China; Shanghai Bio Door Gene Technology Ltd.
SO PCT Int. Appl., 37 pp. CODEN: PIXXD2
DT Patent
LA Chinese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001047973 A1 20010705 WO 2000-CN628 20001218 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CN 1300770 A 20010627 CN 1999-125734 19991223 AU 2001019891 A5 20010709 AU 2001-19891 20001218
PRAI CN 1999-125734 A 19991223 WO 2000-CN628 W 20001218
AB The invention provides ***cDNA*** sequences for 14 kDa novel human protein cloned from fetal brain, and its protein sequences which have sequence homol. to gas ***vesicle*** protein. The invention also relates to constructing gas ***vesicle*** protein 14 gene expression vectors to prep. recombinant gas ***vesicle*** protein 14 protein using prokaryote or eukaryote cells. Methods of expressing and prepg. recombinant gas ***vesicle*** protein 14 protein and its antibody are described. Methods of using gas ***vesicle*** protein 14 gene or protein products for the treatment of various kinds of diseases, such as cancer, blood diseases, HIV infection, immune diseases and inflammation are also disclosed.
RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 47 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:487641 CAPLUS
DN 135:239648
TI RLIP76 Is the Major ATP-Dependent Transporter of Glutathione-Conjugates and Doxorubicin in Human Erythrocytes
AU Sharma, Rajendra; Singhal, Sharad S.; Cheng, Jizhong; Yang, Yusong; Sharma, Abha; Zimniak, Piotr; Awasthi, Sanjay; Awasthi, Yogesh C.
CS Department of Human Biological Chemistry and Genetics, University of Texas Medical Branch, Galveston, TX, USA
SO Archives of Biochemistry and Biophysics (2001), 391(2), 171-179 CODEN: ABBIA4; ISSN: 0003-9861
PB Academic Press
DT Journal
LA English
AB We have recently demonstrated that RLIP76, a Ral- ***binding*** GTPase activating ***protein*** mediates ATP-dependent transport of glutathione (GSH) conjugates of electrophiles (GS-E) as well as doxorubicin (DOX), and that it is identical with DNP-SG ATPase, a GS-E transporter previously characterized by us in erythrocyte membranes. Multidrug resistance-assocd. ***protein*** (MRP1) belonging to the family of the ABC-transporters has also been suggested to be a GS-E transporter in human erythrocytes. Using immunol. approaches, the present studies were designed to elucidate the relative contributions of RLIP76, MRP1, and P-glycoprotein (Pgp), in the ATP-dependent transport of GS-E and DOX in human erythrocytes. In Western blot analyses using antibodies against RLIP76, a strong expression of RLIP76 was obsd. in erythrocytes. Immunohistochem. studies using a fluorescent ***probe*** showed assocn. of RLIP76 with erythrocyte membrane, which was consistent with its transport function. Neither MRP1 nor Pgp were ***detected*** in erythrocytes when the antibodies against MRP1 or Pgp were used. In erythrocyte inside-out ***vesicles*** (IOVs) coated with antibodies against RLIP76, a dose-dependent inhibition of the ATP-dependent transport of DOX and GS-E, including S-(dinitrophenyl)glutathione (DNP-SG), leukotriene C4, and the GSH conjugate of 4-hydroxynonenal, was obsd. with a maximal inhibition of about 70%. On the contrary, in the IOVs coated with the antibodies against MRP1 or Pgp no significant inhibition of the ATP-dependent transport of these compds. was obsd. These findings suggest that RLIP76 is the major ATP-dependent transporter of GS-E and DOX in human erythrocytes. (c) 2001 Academic Press.
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 48 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:408705 CAPLUS
DN 135:42888
TI ***Detection*** of viable Cryptosporidium parvum using ***DNA*** -modified ***liposomes*** in a microfluidic chip

AU Esch, Mandy B.; Locascio, Laurie E.; Tarlov, Michael J.; Durst, Richard A.
CS Analytical Chemistry Laboratories, Cornell University, Geneva, NY, 14456-0462, USA
SO Analytical Chemistry (2001), 73(13), 2952-2958 CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB This paper describes a microfluidic chip that enables the ***detection*** of viable Cryptosporidium parvum by ***detecting*** ***RNA*** amplified by ***nucleic*** - ***acid*** -sequence-based amplification (NASBA). The ***mRNA*** serving as the template for NASBA is produced by viable C. parvum as a response to heat shock. The chip utilizes sandwich ***hybridization*** by ***hybridizing*** the NASBA-generated amplicon between capture ***probes*** and reporter ***probes*** in a microfluidic channel. The reporter ***probes*** are tagged with carboxyfluorescein-filled ***liposomes*** . These ***liposomes*** , which generate fluorescence intensities not obtainable from single fluorophores, allow the ***detection*** of very low concns. of targets. The limit of ***detection*** of the chip is 5 fmol of amplicon in 12.5 .mu.L of sample soln. Samples of C. parvum that underwent heat shock, extn., and amplification by NASBA were successfully ***detected*** and clearly distinguishable from controls. This was accomplished without having to sep. the amplified ***RNA*** from the NASBA mixt. The microfluidic chip can easily be modified to ***detect*** other pathogens. We envision its use in .mu.-total anal. systems (.mu.-TAS) and in ***DNA*** -array chips utilized for environmental monitoring of pathogens.
RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 49 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:381020 CAPLUS
DN 135:41522
TI ***Detection*** of Cryptosporidium parvum using oligonucleotide-tagged ***liposomes*** in a competitive assay format
AU Esch, Mandy B.; Baeumner, Antje J.; Durst, Richard A.
CS BioAnalytical Research Laboratories Department of Food Science Technology, Cornell University, Geneva, NY, 14456-0462, USA
SO Analytical Chemistry (2001), 73(13), 3162-3167 CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB To meet the tech. challenge of accurately and rapidly ***detecting*** Cryptosporidium parvum oocysts in environmental water, the authors developed a single-use visual-strip assay. The first step in the overall assay procedure involves extg. C. parvum's ***mRNA*** coding for heat-shock ***protein*** hsp70, followed by amplification using ***nucleic*** ***acid*** sequence-based amplification (NASBA) methodol. as described previously (Baeumner, A. J.; Humiston, M.; Montagna, R. A.; Durst, R. A. Anal. Chem., in press). Subsequently, generated amplicons are ***hybridized*** with dye-entrapping ***liposomes*** bearing ***DNA*** oligonucleotides (reporter ***probes***) and biotin on their surface. The ***liposome*** -amplicon complex is then allowed to migrate upward on a nitrocellulose membrane strip. On the nitrocellulose strip, antisense-reporter ***probes*** are immobilized in a capture zone and antibiotin antibodies are immobilized in a second zone above the capture zone. Depending on the presence or absence of amplicon in the sample, the ***liposomes*** will ***bind*** to the capture zone, or they will be caught via their biotin tag in the second zone. Visual ***detection*** or gray-scale densitometry allows the quantification of ***liposomes*** that are present in either zone. The ***detection*** limit of the assay was detd. to be 80 fmol amplicon/test. High accuracy and an internal assay control is established using this competitive format, because the presence or absence of ***liposomes*** can be quantified in the two capture zones.
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 50 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:327379 CAPLUS
DN 135:57978
TI Selective ***binding*** of perfringolysin O derivative to cholesterol-rich membrane microdomains (rafts)
AU Waheed, A. A.; Shimada, Yukiko; Heijnen, Harry F. G.; Nakamura, Megumi; Inomata, Mitsushi; Hayashi, Masami; Iwashita, Shintaro; Slot, Jan W.; Ohno-Iwashita, Yoshiko
CS Department of Protein Biochemistry, Tokyo Metropolitan Institute of Gerontology, Tokyo, 173-0015, Japan
SO Proceedings of the National Academy of Sciences of the United States of America (2001), 98(9), 4926-4931 CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB There is increasing evidence that sphingolipid- and cholesterol-rich microdomains (rafts) exist in the plasma membrane. Specific ***proteins*** assemble in these membrane domains and play a role in signal transduction and many other cellular events. Cholesterol depletion causes disassembly of the raft-assocd. ***proteins*** , suggesting an essential role of cholesterol in the structural maintenance and function of rafts. However, no tool has been available for the ***detection*** and monitoring of raft cholesterol in living cells. Here, we show that a protease-nicked and biotinylated deriv. (BC.theta.) of perfringolysin O (.theta.-toxin) ***binds*** selectively to cholesterol-rich microdomains of intact cells, the domains that fulfill the criteria of rafts. We fractionated the homogenates of nontreated and Triton X-100-treated platelets after incubation with BC.theta. on a sucrose gradient. BC.theta. was predominantly localized in the floating low-d. fractions (FLDF) where cholesterol, sphingomyelin, and Src family kinases are enriched.

Immunoelectron microscopy demonstrated that BC.theta. ***binds*** to a subpopulation of ***vesicles*** in FLDF. Depletion of 35% cholesterol from platelets with cyclodextrin, which accompanied 76% redn. in cholesterol from FLDF, almost completely abolished BC.theta. ***binding*** to FLDF. The staining patterns of BC.theta. and filipin in human epidermoid carcinoma A431 cells with and without cholesterol depletion suggest that BC.theta. ***binds*** to specific membrane domains on the cell surface, whereas filipin ***binding*** is indiscriminate to cell cholesterol. Furthermore, BC.theta. ***binding*** does not cause any damage to cell membranes, indicating that BC.theta. is a useful ***probe*** for the ***detection*** of membrane rafts in living cells.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 51 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:322775 CAPLUS
DN 135:17018
TI Physiological control of xunc18 expression in neuroendocrine melanotrope cells of Xenopus laevis
AU Kolk, S. M.; Berghs, C. A. F. M.; Vaudry, H.; Verhage, M.; Roubos, E. W.
CS Department of Cellular Animal Physiology, Nijmegen Institute for Neurosciences, University of Nijmegen, Nijmegen, 6525 ED, Neth.
SO Endocrinology (2001), 142(5), 1950-1957 CODEN: ENDOAO; ISSN: 0013-7227
PB Endocrine Society
DT Journal
LA English
AB In mammals, the brain-specific protein munc18-1 regulates synaptic ***vesicle*** exocytosis at the synaptic junction, in a step before ***vesicle*** fusion. The authors hypothesize that the rate of biosynthesis of munc18-1 ***mRNA*** and the amt. of munc18-1 present in neurons and neuroendocrine cells are related to the physiol. controlled state of activity. To test this hypothesis, the homolog of munc18-1 in the clawed toad Xenopus laevis, xunc18, was studied in the brain and in the neuroendocrine melanotroph cells in the intermediate lobe of the pituitary gland, at both the ***mRNA*** and the protein level. In toads adapted to a black background, the melanotrophs release .alpha.-MSH, which induces darkening of the skin, whereas in animals adapted to a white background the cells hardly release but store .alpha.-MSH, making the animal's skin look pale. The intermediate pituitary lobe of black-adapted animals revealed a strong ***hybridization*** reaction with the xunc18 ***mRNA*** ***probe*** , whereas a much weaker ***hybridization*** was obsd. in the intermediate lobe of white-adapted animals (optical d. black: 3.4 vs. white: 0.8). Immunocytochem., Xenopus munc18-like protein has been ***detected*** throughout the brain, in identified neuronal perikarya as well as in axon tracts. Western blot anal. and immunocytochem. further demonstrated the presence of xunc18 in the neural, intermediate and distal lobe of the pituitary gland. Xunc18 protein was furthermore detd. in immunoblots of homogenates of melanotrophs dissocd. from the pituitary gland. In melanotrophs of toads adapted to a black background, the integrated optical d. of the xunc18 immunosignal was 2.7 times higher than in cells of white-adapted toads. It is concluded that, in Xenopus melanotroph cells, the amts. of both xunc18 ***mRNA*** and xunc18 protein are up-regulated in conjunction with the induction of exocytosis of .alpha.-MSH as a result of a physiol. stimulation (environmental light condition). The authors propose that xunc18 is involved in physiol. controlled exocytotic secretion of neuroendocrine messengers.
RE.CNT 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 52 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:273375 CAPLUS
DN 135:31386
TI Distribution and transmission of Agrocybe aegerita dsRNAs
AU Barroso, G.; Labarere, J.
CS Laboratory of Molecular Genetics and Breeding of Cultivated Mushrooms, University Victor Segalen, INRA-Bordeaux, Fr.
SO Mushroom Science (2000), 15(Vol. 1), 271-280 CODEN: MUSCAU; ISSN: 0077-2364
PB A. A. Balkema
DT Journal
LA English
AB In a population of 30 A. aegerita wild strains from different European locations, dsRNAs exhibited a widespread occurrence accompanied by an inter-strain variability in no. and size. The dsRNAs, ***detected*** in eight of the studied strains, ranged in size from 1.5 to 2.7 kb and ***hybridized*** with a ***probe*** constituted by the previously characterized naked M-dsRNAs of the wild strain WT-3. DsRNAs were shown to be efficiently transmitted from the vegetative dikaryotic mycelium to the differentiated basidiocarps, but not efficiently to the homokaryotic progeny, thus limiting the vertical transmission and suggesting a vesicular location. In matings between a dikaryon contg. naked dsRNAs and a compatible dsRNA-free homokaryon, dsRNAs were not transmitted, suggesting that transmission of the cytoplasmic dsRNA-contg. organites was lacking, or at least limited to the fusion line, during plasmogamy and the concomitant nuclear migration.
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 53 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:247459 CAPLUS
DN 134:294083
TI Characterization and diagnostic and therapeutic uses of cancer-associated membrane type serine protease 1 (MT-SP1)

IN Craik, Charles S.; Takeuchi, Toshihiko; Shuman, Marc
PA The Regents of the University of California, USA
SO PCT Int. Appl., 102 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001023524 A2 20010405 WO 2000-US27250 20001002 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 2000079913 A5 20010430 AU 2000-79913 20001002
PRAI US 1999-410362 A 19990930 WO 2000-US27250 W 20001002
AB This invention provides ***cDNA*** and encoded amino acid sequences of a novel membrane-type serine protease (designated MT-SP1) elevated expression of which is assocd. with cancer. In one embodiment, this invention provides a method obtaining a prognosis or of ***detecting*** or staging a cancer in an organism. The method involves providing a biol. sample from the organism and ***detecting*** the level of a membrane-type serine protease 1 (MT-SP1) in the sample, where an elevated level of the membrane-type serine protease, as compared to the level of the protease in a biol. sample from a normal healthy organism indicates the presence or stage of the cancer.

L16 ANSWER 54 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:228915 CAPLUS
DN 134:247225
TI Methods of screening for compounds that modulate the LSR (lipolysis stimulated receptor)-leptin interaction and their use in the prevention and treatment of obesity-related diseases
IN Yen, Frances; Erickson, Mary Ruth; Fruebis, Joachim; Bihain, Bernard
PA Genset, Fr.
SO PCT Int. Appl., 247 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001021647 A2 20010329 WO 2000-IB1470 20000922 WO 2001021647 A3 20020307 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2388417 AA 20010329 CA 2000-2388417 20000922 EP 1214351 A2 20020619 EP 2000-964574 20000922 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL
PRAI US 1999-155506P P 19990922 WO 2000-IB1470 W 20000922
AB The present invention is drawn to methods of screening for new compds. for the treatment of obesity and obesity-related diseases and disorders, as well as methods of treating obesity-related diseases and disorders, based on the discovery of the role of the leptin-LSR interaction in obesity. The lipolysis stimulated receptor (LSR) displays a high affinity for unmodified triglyceride-rich lipoproteins and is involved in the partitioning of dietary lipids among the liver,adipose tissue and muscle. Leptin and the leptin fragment described herein were found to diminish the postprandial lipemic response in dbPas/dbPa5 mice which lack the leptin OB receptor, thereby showing that leptin signaling can be independent of the OB receptor. Leptin increases the activity of LSR, ***binds*** directly to LSR, and that leptin ***binding*** leads to leptin degrdn. LSR is actually at least two receptors, one for triglyceride-rich lipoproteins, and one for leptin. The three subunits that make up LSR,.alpha., .beta., and .alpha.', actually combine in at least two ways: (1) .alpha. and .beta. together make up the LSR receptor for triglyceride-rich lipoproteins, and (2) .alpha.' is a necessary part of the LSR receptor for leptin, that may include .beta. as well. Thus, it is now clear that assays can be designed for identifying modulators or receptors/ ***binding*** partners/signalling cascade members that are specific for the triglyceride-related activity of LSR or for the leptin-related activity of LSR or both. Further, the invention features the discovery of a 22 amino acid region of human leptin that modulates LSR activity in vitro and in vivo in the same way as the intact human leptin, thus allowing the use of only this crit. region in assays for modulators of the leptin-LSR interaction, and new leptin receptors and ***binding*** partners. The new leptin fragment can also be used in disease treatment since it is active in mice at a physiol.-relevant level.

L16 ANSWER 55 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:222879 CAPLUS
DN 134:338416
TI An ovarian progastricsin is present in the trout coelomic fluid after ovulation
AU Bobe, Julien; Goetz, Frederick William
CS Institut National de la Recherche Agronomique, S.C.R.I.B.E., Rennes, 35042, Fr.
SO Biology of Reproduction (2001), 64(4), 1048-1055 CODEN: BIREBV; ISSN: 0006-3363
PB Society for the Study of Reproduction
DT Journal
LA English

AB An up-regulated ***cDNA*** fragment was isolated using a differential display polymerase chain reaction between ovulatory and postovulatory brook trout ovarian tissues. Using this fragment as a ***probe*** , a full-length ***cDNA*** of 1783 base pairs was obtained from an ovarian ***cDNA*** library. The ***cDNA*** presumably codes for a 383-amino acid protein with strong sequence similarity to an aspartic protease, progastricsin (EC 3.4.23.3), also known as pepsinogen C. On Northern blots of ovarian tissue, the trout progastricsin ***cDNA*** ***hybridized*** with a 1.8-kilobase transcript that was strongly up-regulated 4-6 days after ovulation. Of all other tissues tested, a transcript was only ***detected*** in the stomach. A recombinant trout progastricsin protein was produced and used to raise an antibody. On Western blots of ovarian tissue, the progastricsin antibody recognized a single 39-kDa protein that was present in the ovary only following ovulation. On Western blots of coelomic fluid, the 39-kDa protein was strongly ***detected*** 4-10 days after ovulation. The trout progastricsin was immunocytochem. localized to the granulosa cells of post-ovulatory follicles, suggesting that it is released from this tissue into the coelomic fluid following ovulation. Progastricsin has been found in the stomach, prostate, seminal ***vesicle*** , seminal fluid, and pancreas of vertebrates; however, this is the 1st report of a progastricsin in an animal ovary.
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 56 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:208442 CAPLUS
DN 134:231892
TI Altered mitochondrial function indicator-based methods and compositions for diagnosing and treating arthritic disorders and regulating bone mass
IN Murphy, Anne N.; Dykens, James A.; Ghosh, Soumitra S.; Davis, Robert E.; Granston, Andrew E., Jr.; Terkeltaub, Robert
PA Mitokor, USA
SO PCT Int. Appl., 141 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001020018 A2 20010322 WO 2000-US25317 20000915 WO 2001020018 A3 20020711 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2384855 AA 20010322 CA 2000-2384855 20000915 AU 2000075826 A5 20010417 AU 2000-75826 20000915 EP 1236044 A2 20020904 EP 2000-965038 20000915 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL JP 2003520575 T2 20030708 JP 2001-523789 20000915
PRAI US 1999-154145P P 19990915 US 2000-661848 A 20000914 WO 2000-US25317 W 20000915
AB Improved diagnostic methods are provided for early ***detection*** of a risk for developing an arthritic disorder in humans, as are screening assays for therapeutic agents useful in the treatment of arthritic disorders, by comparing the levels of one or more indicators of altered mitochondrial function. Indicators of altered mitochondrial function include enzymes e.g. mitochondrial enzymes and ATP biosynthesis factors. Other indicators of altered mitochondrial function include mitochondrial mass, mitochondrial no. and mitochondrial ***DNA*** content, cellular responses to elevated intracellular calcium and to apoptogens, and free radical prodn. Methods of treating, and of stratifying, human patients as such methods relate to disclosed indicators of altered mitochondrial function are also provided.

L16 ANSWER 57 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:160005 CAPLUS
DN 134:364524
TI Regulation of mouse kidney tubular epithelial cell-specific expression of core 2 GlcNAc transferase
AU Sekine, Michiko; Taya, Choji; Kikkawa, Yoshiaki; Yonekawa, Hiromichi; Takenaka, Masaru; Matsuoka, Yasuko; Imai, Enyu; Izawa, Mineko; Kannagi, Reiji; Suzuki, Akemi
CS Departments of Membrane Biochemistry and Laboratory Animal Science, The Tokyo Metropolitan Institute of Medical Science, Japan
SO European Journal of Biochemistry (2001), 268(4), 1129-1135 CODEN: EJBCAI; ISSN: 0014-2956
PB Blackwell Science Ltd.
DT Journal
LA English
AB A mouse gene, Gsl5, controls the expression of Gal.beta.1-4(Fuc.alpha.1- 3)GlcNAc.beta.1-6(Gal.beta.1-3)Gb4Cer and its precursor glycolipids in the kidney by regulating transcription of .beta.-1,6-GlcNAc transferase. Here we report that Gsl5 controls the expression of the core 2 structure [GlcNAc.beta.1-6(Gal.beta.1-3)GalNAc.alpha.1-Ser/Thr] of glycoproteins as well as the glycolipid, GlcNAc.beta.1-6(Gal.beta.1-3)GalNAc.beta.1- 3Gal.alpha.1-4Gal.beta.1-4Glc.beta.1-ceramide. Immunohistochem. studies using an anti-(core 2-Lex) monoclonal antibody demonstrated that lysosome-like ***vesicles*** of proximal tubule cells were clearly stained in a Gsl5 wild type mouse, but not in a Gsl5 mutant strain of mice. Western blotting of microsomal fractions of kidney tissue with the same antibody confirmed the histol. findings. In situ ***hybridization*** with an antisense ***probe*** to the kidney-specific ***mRNA*** demonstrated that the ***mRNA*** is localized at proximal tubule-cells in the cortex adjacent to the medulla, but not ***detected*** in glomeruli nor in collecting duct cells in the medulla. The results obtained by immunohistol. staining and in situ ***hybridization*** are compatible and lead to the conclusion that the kidney specific ***mRNA*** is expressed in a proximal

tubular cell specific manner and produces core 2 GlcNAc transferase responsible for the prodn. of glycoprotein localized at ***vesicles*** in the proximal tubular cells. Glycosylation regulated by Gsl5 gene may modify functions of membrane glycoproteins in proximal tubular cells.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 58 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:78529 CAPLUS
DN 134:142784
TI ***cDNA*** and ***DNA*** clones encoding human PMF-1 (polyamide-modulated factor 1), sequences, and biological and therapeutic uses thereof
IN Casero, Robert A., Jr.; Wang, Yanlin; Pegg, Anthony E.
PA Johns Hopkins University School of Medicine, USA
SO PCT Int. Appl., 61 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2001007610 A1 20010201 WO 2000-US19994 20000721 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI US 1999-145347P P 19990723
AB The invention provides ***cDNA*** and ***DNA*** mols. encoding human PMF-1 (polyamide-modulated factor 1), including fragments and/or sequence variants thereof. The invention relates that PMF-1, as well as PMF-1 variants, increase the transcription of the gene encoding spermidine/spermine N1-acetyltransferase (SSAT), in the presence of excess Nrf-2. The invention also provides ***nucleic*** ***acid*** mols. which are complementary to the PMF-1 ***cDNA*** mol., comprising at least 17 nucleotides and which can ***hybridize*** to PMF-1 ***cDNA*** mol. The invention further provides a vector contg. said PMF-1 ***cDNA*** mol., a compn. comprising said vector, and a cell transformed with said vector. Still further, the invention provides (a) a conjugate comprising a purified PMF-1 mol. and a targeting moiety, wherein target moiety may be an antibody; (b) a hybridoma cell producing anti-PMF-1 monoclonal antibody; (c) polyclonal antiserum raised to PMF-1; (d) use of PMF-1 conjugate and/or PMF-1 ***cDNA*** mol. in regulating transcription of PMF-1-responsive genes, such as SSAT gene, in a cancerous cell; and (e) a method for assessing the sensitivity of cancerous cells to treatment with a polyamine or analog thereof, which involves measuring the level of PMF-1 ***mRNA*** or PMF-1 protein in a cell after contacting the cells with a polyamine or analog thereof. Finally, the invention provides the ***cDNA*** , ***DNA*** and amino acid sequences of human PMF-1. In the example section, the invention described the cloning methods used to obtain the ***cDNA*** and ***DNA*** sequences. The invention also described the genomic organization, chromosome localization, and ***mRNA*** expression of the human PMF-1 gene. The human PMF-1 gene was found to contain 5 exons and was mapped to chromosome 1q12/1q21. A 1.2-kb ***mRNA*** was expressed in multiple tissues, and significant induction of PMF-1 gene ***mRNA*** was ***detected*** after treatment with polyamine analog BENSpm only in a sensitive cell line (H157). PMF-1 is characterized as a human factor induced in response to polyamine or an analog of thereof, which interacts with the leucine zipper of Nrf-2 and together with Nrf-2 activates transcription of SSAT (spermidine/spermine N1-acetyltransferase).
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 59 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:882087 CAPLUS
DN 134:128960
TI Expression of the lipocalin-type prostaglandin D synthase gene in the reproductive tracts of Holstein bulls
AU Rodriguez, C. M.; Day, J. R.; Killian, G. J.
CS Department of Dairy and Animal Science, Pennsylvania State University, University Park, PA, 16802, USA
SO Journal of Reproduction and Fertility (2000), 120(2), 303-309 CODEN: JRPFA4; ISSN: 0022-4251
PB Journals of Reproduction and Fertility Ltd.
DT Journal
LA English
AB The aim of this study was to localize expression of the prostaglandin D synthase gene in the reproductive tracts of Holstein bulls using northern blotting and in situ ***hybridization*** . For northern blotting, a digoxigenin-labeled prostaglandin D synthase ***cDNA*** ***probe*** was used to ***probe*** blots contg. ***RNA*** isolated from the testes, epididymidis, vas deferens, ampullae, seminal ***vesicles*** , prostate and bulbourethral glands of bulls. The digoxigenin-labeled ***cDNA*** for the bovine homolog of prostaglandin D synthase ***hybridized*** to a single band (approx. 0.9 kb) to ***RNA*** samples from the caput, corpus and cauda epididymidis, as well as ***RNA*** samples from the vas deferens and the ampulla. The ***probe*** also ***detected*** a single band in testis samples, although the transcript size was slightly larger (approx. 1.0 kb) than the transcript found in the other tissues. The highest expression of prostaglandin D synthase was obsd. in the testes and caput epididymidis. Prostaglandin D synthase transcripts were not found in the seminal ***vesicles*** or the prostate or bulbourethral glands using northern blotting. For in situ ***hybridization*** , antisense and sense riboprobes were synthesized and used to ***hybridize*** to cryosections obtained from the reproductive tissues of bulls. In situ ***hybridization*** of bull testes showed

that prostaglandin D synthase transcripts were present within the germ cells in the adluminal compartment of the seminiferous tubules contg. round and elongated spermatids, indicating that expression varied with stage of development of the seminiferous tubules. Prostaglandin D synthase expression was obsd. in the epithelial cells of the epididymidis with greatest expression occurring in the caput epididymidis. Some expression was also obsd. in the epithelial cells of the vas deferens and a few cells of some lobules in the prostate and bulbourethral glands. Expression of the prostaglandin D synthase gene was not ***detected*** in ampullae or seminal ***vesicles*** by in situ ***hybridization*** .
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 60 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:876468 CAPLUS
DN 134:190160
TI Avidin-biotin-immobilized ***liposome*** column for chromatographic fluorescence on-line analysis of solute-membrane interactions
AU Liu, X.-Y.; Yang, Q.; Nakamura, C.; Miyake, J.
CS Agency of Industrial Science and Technology, National Institute for Advanced Interdisciplinary Research, Ibaraki, Tsukuba, 305-8562, Japan
SO Journal of Chromatography, B: Biomedical Sciences and Applications (2001), 750(1), 51-60 CODEN: JCBBEP; ISSN: 0378-4347
PB Elsevier Science B.V.
DT Journal
LA English
AB Unilamellar ***liposomes*** with entrapped fluorescent dye calcein were stably immobilized in gel beads by avidin-biotin-***binding*** . The immobilized ***liposomes*** remained extremely stable upon storage and chromatog. runs. The immobilized calcein-entrapped ***liposomes*** were utilized for fluorescent anal. of solute-membrane interactions, which in some cases are too weak to be ***detected*** by chromatog. retardation. A ***liposome*** column was used as a sensitive ***probe*** to ***detect*** the interactions of membranes with pharmaceutical drugs, ***peptides*** and ***proteins*** . Retardation of the solutes was monitored using a UV ***detector*** . Perturbation of the membranes, reflected as leakage of the entrapped calcein by some of the solutes, can thus be ***detected*** online using a flow-fluorescent ***detector*** . For the amphiphilic drugs or synthetic ***peptides*** , perturbation of membranes became more pronounced when the retardation (hydrophobicity) of the mols. increased. On the other hand, in the case of pos.-charged ***peptides*** , polylysine, or partially denatured bovine carbonic anhydrase, significant dye leakage from the ***liposomes*** was obsd. although the retardation was hardly to be measured. Weak ***protein*** -membrane interactions can thus be assumed from the large leakage of calcein from the ***liposomes*** . This provides addnl. useful information for solute-membrane interactions, as perturbation of the membranes was also indicated by avidin-biotin-immobilized ***liposome*** chromatog. (ILC).
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 61 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:861695 CAPLUS
DN 134:38865
TI Human carbamyl phosphate synthetase I polymorphism and diagnostic and therapeutic methods relating thereto
IN Summar, Marshall L.; Christman, Brian W.
PA Vanderbilt University, USA
SO PCT Int. Appl., 171 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2000073322 A1 20001207 WO 2000-US15079 20000601 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 6346382 B1 20020212 US 1999-323472 19990601 EP 1187844 A1 20020320 EP 2000-939475 20000601 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO PRAI US 1999-323472 A2 19990601 WO 2000-US15079 W 20000601
AB Isolated polynucleotide mols. and peptides encoded by these mols. are used in the anal. of human carbamyl phosphate synthetase I phenotypes, as well as in diagnostic and therapeutic applications, relating to a human carbamyl phosphate synthetase I polymorphism. By analyzing genomic ***DNA*** or amplified genomic ***DNA*** , or amplified ***cDNA*** derived from ***mRNA*** , it is possible to type a human carbamyl phosphate synthetase I with regard to the human carbamyl phosphate synthetase I polymorphism, for example, in the context of diagnosing and treating hepatic veno-occlusive disease (HVOD) assocd. with bone marrow transplants. Specifically, a ACC to AAC transversion in exon 36 of the carbamyl phosphate synthetase I gene (nucleotide 4340 of the ***cDNA*** , resulting in an Thr.fwdarw.Asn substitution at protein position 1405) is assocd. with significant impairment in hepatic urea cycle function in patients who receive escalated dose chemotherapy prior to bone marrow transplant, as well as with persistent pulmonary hypertension in sick newborns. PCR primers are provided for diagnostic ***detection*** of this polymorphism.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 62 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:842376 CAPLUS
DN 134:14901
TI ***Liposome*** -enhanced test device and method
IN Durst, Richard Allen; Montagna, Richard A.; Baumner, Antje J.; Siebert, Sui Ti A.; Rule, Geoffrey S.
PA Cornell Research Foundation, Inc., USA; Innovative Biotechnologies International, Inc.
SO PCT Int. Appl., 57 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2000072019 A2 20001130 WO 2000-US13592 20000518 WO 2000072019 A3 20010913 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG US 6358752 B1 20020319 US 1999-315576 19990520
PRAI US 1999-315576 A 19990520 US 1996-722901 A2 19960927 US 1998-86190P P 19980521 US 1998-106122P P 19981029
AB A test device and method for ***detecting*** or quantifying an analyte in a test sample employs an interdigitated electrode array and electroactive marker-encapsulating ***liposomes*** for signal generation and ***detection*** . The test device includes a contact portion on a first absorbent material, a capture portion either on the first absorbent material, or on a second absorbent material in fluid flow contact with the first absorbent material. The capture portion has a binding material specific for a portion of the analyte bound thereto. The device further includes an electrode array including first and second conductors each having a plurality of fingers, wherein the fingers of the conductors are interdigitated. The electrode array is positioned to induce redox cycling of an electroactive marker released either in or beyond the capture portion, depending upon whether direct (proportional) or indirect (inversely proportional) ***detection*** or measurement is desired. In the method of the invention, the test sample is applied to the contact portion, and allowed to migrate along the absorbent material(s) into the capture portion. Either before or after the migration, the test sample is contacted with a conjugate of ***liposomes*** and a second binding material for the analyte. To the extent that analyte is present in the sample, the conjugate is bound in the capture portion. By applying a voltage across the conductors, redox cycling of the marker is induced and a current is generated. Cryptosporidium parvum hsp70 ***mRNA*** was ***detected*** using immobilized ***probe*** test strips placed on interdigitated ultramicroelectrode arrays. ***Liposomes*** coupled to specific oligonucleotides were used in the enhancement.

L16 ANSWER 63 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:830793 CAPLUS
DN 134:128172
TI ***Liposomes*** labeled with biotin and horseradish peroxidase: a ***probe*** for the enhanced amplification of antigen-antibody or oligonucleotide- ***DNA*** sensing processes by the precipitation of an insoluble product on electrodes
AU Alfonta, Lital; Singh, Anup K.; Willner, Itamar
CS Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem, 91904, Israel
SO Analytical Chemistry (2001), 73(1), 91-102 CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB ***Liposomes*** labeled with biotin and the enzyme horseradish peroxidase (HRP) are used as a ***probe*** to amplify the sensing of antigen-antibody interactions or oligonucleotide- ***DNA*** ***binding*** . The HRP-biocatalyzed oxidn. of 4-chloro-1-naphthol (I) in the presence of H2O2, and the pptn. of the insol. product (II) on electrode supports, are used as an amplification route for the sensing processes. The anti-dinitrophenyl antibody (DNP-Ab) is sensed by a dinitrophenyl-L-cysteine antigen monolayer assocd. with an Au electrode. A biotinylated anti-IgG-antibody (Fc-specific) is linked to the antigen-DNP-Ab complex, and the biotin-labeled HRP- ***liposomes*** assoc. with the assembly through an avidin bridge. The biocatalyzed pptn. of II on the electrode increases the electron-transfer resistances at the electrode-soln. interface or the electrode resistance itself. The ***binding*** events of the different ***proteins*** on the electrode and the biocatalyzed pptn. of II on the conductive support are followed by Faradaic impedance spectroscopy or const.-current chronopotentiometry. DNP-Ab concns. as low as 1 .times. 10-11 g.cntdot.mL-1 can be ***detected*** by this method. The labeled ***liposomes*** were also used for the amplified ***detection*** of ***DNA*** . The oligonucleotide, complementary to a part of the target ***DNA*** that is a model ***nucleic*** ***acid*** sequence for the Tay-Sachs genetic disorder, is assembled on an Au electrode. ***Hybridization*** of the analyte ***DNA*** followed by the assocn. of the biotin-tagged oligonucleotide yields a three-component double-stranded assembly. Sensing of the analyte ***DNA*** is amplified by the assocn. of avidin, the labeled ***liposomes*** , and the subsequent biocatalyzed pptn. of II on the electrodes. The ***DNA*** is ***detected*** with a sensitivity that corresponds to 6.5 .times. 10-13 M. Faradaic impedance spectroscopy and chronopotentiometry were employed to follow the stepwise assembly of the systems and the electronic transduction of the ***detection*** of the analyte ***DNA*** .
RE.CNT 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 64 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:805381 CAPLUS
DN 134:126914
TI Gangliosides as Receptors for Biological Toxins: Development of Sensitive Fluoroimmunoassays Using Ganglioside-Bearing ***Liposomes***
AU Singh, Anup K.; Harrison, Suzanne H.; Schoeniger, Joseph S.
CS Chemical Radiation Detection Laboratory, Sandia National Laboratories, Livermore, CA, 94550, USA
SO Analytical Chemistry (2000), 72(24), 6019-6024 CODEN: ANCHAM; ISSN: 0003-2700
PB American Chemical Society
DT Journal
LA English
AB Gangliosides, glycosphingolipids present in the membranes of neuronal and other cells, are natural receptors for a no. of bacterial toxins and viruses whose sensitive ***detection*** is of interest in clin. medicine as well as in biol. warfare or terrorism incidents. ***Liposomes*** contg. gangliosides mimic cells that are invaded by bacterial toxins and can be used as sensitive ***probes*** for ***detecting*** these toxins. The authors discuss ***detection*** of three bacterial toxins-tetanus, botulinum, and cholera toxins using ganglioside-bearing ***liposomes*** . Tetanus and botulinum toxins selectively ***bind*** gangliosides of the G1b series, namely, GT1b, GD1b, and GQ1b; and cholera toxin ***binds*** GM1 very specifically. Unilamellar ***liposomes*** contg. GT1b or GM1 as one of the constituent lipids were prepd. by extrusion through polycarbonate membranes. To impart signal generation capability to these ***liposomes*** , fluorophore-labeled lipids were incorporated in the bilayer of ***liposomes*** . The fluorescent ***liposomes*** , contg. both a marker (rhodamine) and a receptor (GT1b or GM1) in the bilayer, were used in sandwich fluoroimmunoassays for tetanus, botulinum, and cholera toxins and as low as 1 nM of each toxin could be ***detected*** . The apparent dissocn. consts. of ***liposome*** -toxin complexes were in 10-8 M range, indicating strong ***binding*** . This is the first report on ***detection*** of tetanus and botulinum toxins based on specific recognition by gangliosides. The fluorescent ***liposomes*** are attractive as immunoreagents for another reason as well-they provide enormous signal amplification for each ***binding*** event as each ***liposome*** contains up to 22,000 rhodamine mols. The present approach using receptors incorporated in bilayers of ***liposomes*** offers a unique soln. to employ water-insol. receptors, such as glycolipids and membrane ***proteins*** , for sensitive ***detection*** of toxins and other clin. important biomols.
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 65 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:756920 CAPLUS
DN 133:318258
TI Novel diagnostic standards for virus ***detection*** and quantification
IN Wang, Richard Yuan-hu; Shih, James W.
PA Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, USA
SO PCT Int. Appl., 27 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 2000063440 A2 20001026 WO 2000-US10901 20000420 WO 2000063440 A3 20020110 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2370957 AA 20001026 CA 2000-2370957 20000420 AU 2000046574 A5 20001102 AU 2000-46574 20000420 EP 1194588 A2 20020410 EP 2000-928317 20000420 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO
PRAI US 1999-130183P P 19990420 WO 2000-US10901 W 20000420
AB The invention provides replication incompetent viral particles that are used as internal controls for viral ***detection*** and/or quantification. These controls are retroviral vectors engineered to contain one or more primer binding sites that are homologous to similar sites found in one or more target wild type viral genomes. Accordingly, the invention also provides methods of using the replication incompetent viral particles as controls for the ***detection*** and/or quantification of wild type viruses. The invention is exemplified by constructing replication incompetent HCV retroviral vectors from patient H (H77 isolate) with chronic post-transfusion non-A, non-B hepatitis for HCV amplification assay using RT-PCR.

L16 ANSWER 66 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:655891 CAPLUS
DN 133:331524
TI Piperazine analog of vesamicol: in vitro and in vivo characterization for vesicular acetylcholine transporter
AU Bando, Kazunori; Naganuma, Tomoyoshi; Taguchi, Kazumi; Ginoza, Yasushi; Tanaka, Yoshitomo; Koike, Katsuo; Takatoku, Keizo
CS Research Center, Daiichi Radioisotope Laboratories, Ltd., Chiba, 289-1592, Japan
SO Synapse (New York) (2000), 38(1), 27-37 CODEN: SYNAET; ISSN: 0887-4476
PB Wiley-Liss, Inc.
DT Journal
LA English

AB The ***probes*** to ***detect*** vesicular acetylcholine transporter (VAChT) in vivo are important to evaluate the mapping and function in cholinergic system. To develop high-specific and high-affinity radiotracer for single photon emission computed tomog., we investigated piperazine analogs which replaced the piperidine ring of (-)-vesamicol with a piperazine ring. We found that the piperazine analog of iodobenzovesamicol, trans-5-iodo-2-hydroxy-3-[4-phenylpiperazinyl] tetralin (DRC140), had high affinity for VAChT in rat brain. We carried out ***binding*** assay in subcellular fraction of the rat brain. The highest Bmax for [125I]-DRC140 ***binding*** was obsd. in the synaptic ***vesicle*** fraction (1,751 fmol/mg ***protein***), followed by the crude ***vesicle*** (821 fmol/mg ***protein***) and the P2 fraction (187 fmol/mg ***protein***). These Kd values were similar to the affinity of highly purified synaptic vesicular fraction (Kd = 0.3 nM) with a one-site model. The possibility that [125I]-DRC140 recognizes sigma receptor was excluded by our finding large inhibition consts. (Ki = 849 nM for haloperidol, Ki = 3,052 nM for 1,3-di(2-tolyl)guanidine). In vivo distribution studies with the [123I]-DRC140 in rats showed a rapid brain uptake. The highest brain area was in striatum, followed by frontal cortex, occipital cortex, and hippocampus. The lowest brain area was cerebellum. The radioactivity of high-accumulated areas in ex vivo autoradiog. was reduced by a preinjection of (-)-vesamicol and these levels were reduced to the radioactivity in cerebellum. These results show that [125I]-DRC140 can provide extremely high specific tracer with excellent brain permeability as a ligand for single photon emission computed tomog.
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 67 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:647991 CAPLUS
DN 133:331988
TI Cholate resistance in Lactococcus lactis is mediated by an ATP-dependent multispecific organic anion transporter
AU Yokota, Atsushi; Veenstra, Marloes; Kurdi, Peter; Van Veen, Hendrik W.; Konings, Wil N.
CS Laboratory of Microbial Resources and Ecology, Research Group of Molecular Bioscience, Division of Applied Bioscience, Graduate School of Agriculture, Hokkaido University, Sapporo, 060-8589, Japan
SO Journal of Bacteriology (2000), 182(18), 5196-5201 CODEN: JOBAAY; ISSN: 0021-9193
PB American Society for Microbiology
DT Journal
LA English
AB The cholate-resistant Lactococcus lactis strain C41-2, derived from wild-type L. lactis MG1363 through selection for growth on cholate-contg. medium, displayed a reduced accumulation of cholate due to an enhanced active efflux. However, L. lactis C41-2 was not cross resistant to deoxycholate or cationic drugs, such as ethidium and rhodamine 6G, which are typical substrates of the multidrug transporters LmrP and LmrA in L. lactis MG1363. The cholate efflux activity in L. lactis C41-2 was not affected by the presence of valinomycin plus nigericin, which dissipated the proton motive force. In contrast, cholate efflux in L. lactis C41-2 was inhibited by ortho-vanadate, an inhibitor of P-type ATPases and ATP- ***binding*** cassette transporters. Besides ATP-dependent drug extrusion by LmrA, two other ATP-dependent efflux activities have previously been ***detected*** in L. lactis, one for the artificial pH ***probe*** 2',7'-bis-(2-carboxyethyl)-5(and 6)-carboxyfluorescein (BCECF) and the other for the artificial pH ***probe*** N-(fluorescein thio-ureanyl)-glutamate (FTUG). Surprisingly, the efflux rate of BCECF, but not that of FTUG, was significantly enhanced in L. lactis C41-2. Further expts. with L. lactis C41-2 cells and inside out membrane ***vesicles*** revealed that cholate and BCECF inhibit the transport of each other. These data demonstrate the role of an ATP-dependent multispecific org. anion transporter in cholate resistance in L. lactis.
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 68 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:589650 CAPLUS
DN 133:333646
TI Docosahexaenoic acid-containing phosphatidylcholine affects the ***binding*** of monoclonal antibodies to purified Kb reconstituted into ***liposomes***
AU Jenski, L. J.; Nanda, P. K.; Jiricko, P.; Stillwell, W.
CS Department of Biology, Indiana University-Purdue University at Indianapolis, Indianapolis, IN, 46202-5132, USA
SO Biochimica et Biophysica Acta (2000), 1467(2), 293-306 CODEN: BBACAQ; ISSN: 0006-3002
PB Elsevier Science B.V.
DT Journal
LA English
AB Class I major histocompatibility complex (MHC I) mols. are transmembrane ***proteins*** that ***bind*** and present ***peptides*** to T-cell antigen receptors. The role of membrane lipids in controlling MHC I structure and function is not understood, although membrane lipid compn. influences cell surface expression of MHC I. We reconstituted ***liposomes*** with purified MHC I (Kb) and ***probed*** the effect of lipid compn. on MHC I structure (monoclonal anti-MHC I antibody ***binding***). Four phospholipids were compared; each had a phosphocholine head group, stearic acid in the sn-1 position, and either oleic, .alpha.-linolenic, arachidonic, or docosahexaenoic acid (DHA) in the sn-2 position. The greatest ***binding*** of monoclonal antibody AF6-88.5, which ***detects*** a conformationally sensitive epitope in the extracellular region of the MHC I .alpha.-chain, was achieved with DHA-contg. proteoliposomes. Other epitopes (CTKb, 5041.16.1) showed some sensitivity to lipid compn. The addn. of .beta.2-microglobulin, which assocs. non-covalently with the .alpha.-chain and prevents .alpha.-chain aggregation, did not equalize antibody ***binding*** to proteoliposomes of different lipid compn., suggesting that free .alpha.-chain aggregation was not responsible for disparate antibody ***binding*** . Thus, DHA-contg. membrane lipids may facilitate

conformational change in the extracellular domains of the .alpha.-chain, thereby modulating MHC I function through effects on that ***protein*** 's structure.
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 69 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:588062 CAPLUS
DN 134:84240
TI Effects of carcinogen-induced transcription factors on the activation of hepatitis B virus expression in human hepatoblastoma HepG2 cells and its implication on hepatocellular carcinomas
AU Banerjee, Ranjit; Caruccio, Lorraine; Zhang, Yu Jing; McKercher, Scott; Santella, Regina M.
CS Department of Microbiology and Immunology, New York Medical College, Valhalla, NY, 10595, USA
SO Hepatology (Philadelphia) (2000), 32(2), 367-374 CODEN: HPTLD9; ISSN: 0270-9139
PB W. B. Saunders Co.
DT Journal
LA English
AB To elucidate the mol. mechanisms involved in the action of common carcinogens, which can act as important cofactors in modulating hepatitis B virus-mediated hepatocellular carcinogenesis, we have investigated the influence of aflatoxin B1 (AFB), a potent liver carcinogen, as well as benzo[a]pyrene (BP) and 4-aminobiphenyl (4-ABP), carcinogens in cigarette smoke, on the induction of various transcription factors in human hepatoblastoma HepG2 cells. DNA electrophoretic mobility shift assays were performed with nuclear exts. from HepG2 cells treated with 10 .mu.mol/L AFB, 40 .mu.mol/L BP, or 300 .mu.mol/L 4-ABP for 6 and 24 h. Eight- and 6-fold increases in nuclear transcription factor .kappa.B (NF-.kappa.B), and 5- and 10-fold increases in activated ***protein*** (AP-1) transcription factor were obsd. with 24 h AFB and BP treatments, resp., whereas 4-ABP treatment resulted in an approx. 4-fold induction of both NF-.kappa.B and AP-1. Moreover, 4-ABP gave the strongest NF-.kappa.B activation in 6 h of treatment. Four- and 10-fold activation of stress ***protein*** was ***detected*** by a consensus heat shock factor (HSF) sequence ***binding*** ***probe*** , with AFB and BP treatments, resp. DNA adducts were obsd. by immunoassays in HepG2 cells treated with AFB and BP but not with 4-ABP. Increased human hepatitis B virus (HBV) surface antigen (HBsAg) synthesis was ***detected*** in AFB- and BP-treated HepG2 cells following transfection with re-circularized HBV DNA. These data suggest that certain carcinogen-induced transcription factors may influence viral carcinogenesis and initiate hepatocellular carcinomas (HCC).
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 70 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:392168 CAPLUS
DN 133:134134
TI Novel function of phosphoinositide 3-kinase in T cell Ca2+ signaling. A phosphatidylinositol 3,4,5-trisphosphate-mediated Ca2+ entry mechanism
AU Hsu, Ao-Lin; Ching, Tsui-Ting; Sen, Goutam; Wang, Da-Sheng; Bondada, Subbarao; Authi, Kalwant S.; Chen, Ching-Shih
CS Division of Pharmaceutical Sciences, College of Pharmacy, Sanders-Brown Center on Aging, University of Kentucky, Lexington, KY, 40536, USA
SO Journal of Biological Chemistry (2000), 275(21), 16242-16250 CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB This study presents evidence that phosphoinositide (PI) 3-kinase is involved in T cell Ca2+ signaling via a phosphatidylinositol 3,4,5-trisphosphate PI(3,4,5)P3-sensitive Ca2+ entry pathway. First, exogenous PI(3,4,5)P3 at concns. close to its physiol. levels induces Ca2+ influx in T cells, whereas PI(3,4)P2, PI(4,5)P2, and PI(3)P had no effect on [Ca2+]i. This Ca2+ entry mechanism is cell type-specific as B cells and a no. of cell lines examd. do not respond to PI(3,4,5)P3 stimulation. Second, inhibition of PI 3-kinase by wortmannin and by overexpression of the dominant neg. inhibitor .DELTA.p85 suppresses anti-CD3-induced Ca2+ response, which could be reversed by subsequent exposure to PI(3,4,5)P3. Third, PI(3,4,5)P3 is capable of stimulating Ca2+ efflux from Ca2+-loaded plasma membrane ***vesicles*** prepd. from Jurkat T cells, suggesting that PI(3,4,5)P3 interacts with a Ca2+ entry system directly or via a membrane-bound ***protein*** . Fourth, although D-myo-inositol 1,3,4,5-tetrakisphosphate (Ins(1,3,4,5)P4) mimics PI(3,4,5)P3 in many aspects of biochem. functions such as membrane ***binding*** and Ca2+ transport, the authors raise evidence that Ins(1,3,4,5)P4 does not play a role in anti-CD3- or PI(3,4,5)P3-mediated Ca2+ entry. This PI(3,4,5)P3-stimulated Ca2+ influx connotes physiol. significance, considering the pivotal role of PI 3-kinase in the regulation of T cell function. Given that PI 3-kinase and phospholipase C-.gamma. form multifunctional complexes downstream of many receptor signaling pathways, the authors hypothesize that PI(3,4,5)P3-induced Ca2+ entry acts concertedly with Ins(1,4,5)P3-induced Ca2+ release in initiating T cell Ca2+ signaling. By using a biotinylated analog of PI(3,4,5)P3 as the affinity ***probe*** , the authors have ***detected*** several putative PI(3,4,5)P3- ***binding*** ***proteins*** in T cell plasma membranes.
RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 71 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:383485 CAPLUS
DN 133:132894
TI Osteopontin gene expression in the Holstein bull reproductive tract

AU Rodriguez, Carmen M.; Day, Jonathan R.; Killian, Gary J.
CS Department of Dairy and Animal Science, The Pennsylvania State University, University Park, PA, USA
SO Journal of Andrology (2000), 21(3), 414-420 CODEN: JOAND3; ISSN: 0196-3635
PB American Society of Andrology
DT Journal
LA English
AB The objective of this study was to localize gene expression of osteopontin in the Holstein bull reproductive tract using Northern blot anal. and in situ ***hybridization*** . For Northern blot anal., a digoxigenin-labeled osteopontin complementary ***DNA*** (***cDNA***) was used to ***probe*** blots contg. total ***RNA*** (***RNA***) isolated from the testis, epididymis, vas deferens, ampulla, seminal ***vesicle*** , prostate, and bulbourethral glands. The digoxigenin-labeled ***cDNA*** for the bovine homolog of osteopontin was ***hybridized*** to a single band at approx. 1.6 kb to ***RNA*** samples from the ampulla and seminal ***vesicle*** . For in situ ***hybridization*** studies, antisense and sense riboprobes were synthesized and used to ***hybridize*** cryosections that had been obtained from bull reproductive tissues. In situ ***hybridization*** of the bull testis ***detected*** osteopontin ***mRNA*** in the developing germ cells. Osteopontin gene expression was ***detected*** only in seminiferous tubules that contained elongated spermatids, which suggests that expression varies with the stage of the seminiferous epithelium. Within the epididymis, silver grains were distributed over the sperm that were located within the lumen of the caput, corpus, and cauda epididymis. Osteopontin expression was primarily obsd. in the epithelial cells of the ampulla. Antisense riboprobes also ***hybridized*** to sperm that were located within the lumen of the ampulla, confirming the presence of osteopontin transcripts in the haploid male gamete.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 72 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:304268 CAPLUS
DN 132:331144
TI Human ***cDNA*** clones encoding cellubrevins (CB-2, CB-3 and CB-4), their sequences, ***detection*** using ***hybridization*** and use in recombinant production of CBs
IN Stuart, Susan G.; Hawkins, Phillip R.; Seilhamer, Jeffrey J.; Murry, Lynn E.
PA Incyte Pharmaceuticals, Inc., USA
SO U.S., 36 pp., Cont.-in-part of U.S. 5,650,280. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI US 6060239 A 20000509 US 1996-621018 19960322 US 5650280 A 19970722 US 1995-409373 19950323 CA 2216147 AA 19960926 CA 1996-2216147 19960322 US 5843719 A 19981201 US 1997-897429 19970721 US 6534275 B1 20030318 US 2000-483665 20000114 US 2003180931 A1 20030925 US 2003-357028 20030129
PRAI US 1995-409373 A2 19950323 US 1996-621018 A3 19960322 US 2000-483665 A3 20000114
AB The invention claims polynucleotides (***cDNA*** mols.) that encode human cellubrevin 2, 3 and 4 (CB-2, CB-3 and CB-4). The invention also claims expression vectors contg. these ***cDNA*** mols. and host cells transformed with said vectors for the recombinant prodn. of the cellubrevins. The invention further claims oligonucleotides (***probes***) used in ***nucleic*** ***acid*** ***hybridization*** for ***detecting*** the presence of CB-encoding polynucleotides in a biol. sample. Finally, the invention claims the ***cDNA*** sequences, as well as the corresponding amino acid sequences, of human CB-2, CB-3 and CB-4. The invention also discussed the potential biol. and diagnostic uses of the recombinant CB proteins and included the ***cDNA*** and amino acid sequences of CB-1. The invention further discussed that the CBs are homologs of synaptobrevins, synaptic ***vesicle*** -assocd. membrane proteins.
RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 73 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:155742 CAPLUS
DN 132:345107
TI Fluorescently labeled neomycin as a ***probe*** of phosphatidylinositol-4,5-bisphosphate in membranes
AU Arbuzova, A.; Martushova, K.; Hangyas-Mihalyne, G.; Morris, A. J.; Ozaki, S.; Prestwich, G. D.; McLaughlin, S.
CS Department of Physiology and Biophysics, State University of New York at Stony Brook, Stony Brook, NY, USA
SO Biochimica et Biophysica Acta (2000), 1464(1), 35-48 CODEN: BBACAQ; ISSN: 0006-3002
PB Elsevier Science B.V.
DT Journal
LA English
AB Phosphatidylinositol-4,5-bisphosphate (PI(4,5)P2), a minor component of the plasma membrane, is important in signal transduction, exocytosis, and ion channel activation. Thus fluorescent ***probes*** suitable for monitoring the PI(4,5)P2 distribution in living cells are valuable tools for cell biologists. We report here three expts. that show neomycin labeled with either fluorescein or coumarin can be used to ***detect*** PI(4,5)P2 in model phospholipid membranes. First, addn. of physiol. concns. of PI(4,5)P2 (2%) to lipid ***vesicles*** formed from mixts. of phosphatidylcholine (PC) and phosphatidylserine (PS) enhances the ***binding*** of labeled neomycin significantly (40-fold for 5:1 PC/PS ***vesicles***). Second, physiol. concns. of inositol-1,4,5-trisphosphate (10 .mu.M I(1,4,5)P3) cause little translocation of neomycin from PC/PS/PI(4,5)P2 membranes to the aq. phase, whereas the same concns. of I(1,4,5)P3 cause significant translocation of the green fluorescent ***protein*** /phospholipase C-.delta.

pleckstrin homol. (GFP-PH) constructs from membranes (Hirose et al.). Third, fluorescence microscopy observations confirm that one can distinguish between PC/PS ***vesicles*** contg. either 0 or 2% PI(4,5)P2 by exposing a mixt. of the ***vesicles*** to labeled neomycin. Thus fluorescently labeled neomycin could complement GFP-PH constructs to investigate the location of PI(4,5)P2 in cell membranes.
RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 74 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:816218 CAPLUS
DN 132:219134
TI Amplified Microgravimetric Quartz-Crystal-Microbalance Assay of ***DNA*** Using Oligonucleotide-Functionalized ***Liposomes*** or Biotinylated ***Liposomes***
AU Patolsky, Fernando; Lichtenstein, Amir; Willner, Itamar
CS Institute of Chemistry, The Hebrew University of Jerusalem, Jerusalem, 91904, Israel
SO Journal of the American Chemical Society (2000), 122(2), 418-419 CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
AB We have addressed a novel approach for the specific and highly sensitive ***detection*** of ***DNA*** using oligonucleotide-tagged ***liposomes*** and biotin-tagged ***liposomes*** as amplifying ***probes*** . The sensitivity of the sensing method rests on the fact that the bound ***liposomes*** cover a substantial area (footprint .apprx.4.2 x 104 nm2), and thus only a few recognition events of the analyte ***DNA*** at the sensing sublayer may lead to a ***detectable*** surface coverage by the ***liposome*** . Although the reported sensitivity is impressive, a further diln. of analyte samples may lead to unrealistic ***detection*** time intervals needed to stimulate the ***hybridization*** process. Nonetheless, the availability of small Quartz-Crystal-Microbalance (QCM) flow cells (5-10 .mu.L) suggests that the sensitivity of the system may be further enhanced.
RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 75 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:807869 CAPLUS
DN 132:133396
TI Effects of short-term methylmercury exposure on metallothionein mRNA levels in the testis and epididymis of the rat
AU Dufresne, Julie; Cyr, Daniel G.
CS Human Health Research Centre, INRS-Armand Frappier Institute, University of Quebec, Pointe Claire, QC, H9R 1G6, Can.
SO Journal of Andrology (1999), 20(6), 769-778 CODEN: JOAND3; ISSN: 0196-3635
PB American Society of Andrology
DT Journal
LA English
AB Methylmercury (MeHg) is a widespread environmental contaminant that causes reproductive dysfunction in men. Metallothioneins (MTs) are low-mol.-wt. ***proteins*** that can ***bind*** heavy metals and protect the cell from metal toxicity. MT levels are increased by exposure to metals and physiol. stressors. Although MTs have been identified in the testis and epididymis, little is known about their distribution and regulation in the epididymis or the effects of MeHg on MT levels in male reproductive tissues. The objective of this study was to det. whether MT I, II, and III mRNA are present in the epididymis, if their relative levels differ between epididymal segments, and if MeHg alters cellular mRNA levels for MT I, II, and III in the testis and epididymal segments of the rat. Northern blot anal. was done on total cellular RNA isolated from each of the four epididymal segments (initial segment [IS], caput [CT], corpus [CS], and cauda [CA] epididymis) using a cDNA ***probe*** for MT I and MT II. MT I transcripts were present in all epididymal segments. The lowest mRNA levels were obsd. in the IS; these levels were 4-fold less than in the CT and CS and 5.5-fold less than in the CA. MT II mRNA levels were similar in the IS and CT but were eightfold higher in the CS and CA. A cDNA ***probe*** for MT III was generated by reverse transcription-polymerase chain reaction using testicular RNA. MT III mRNA was ***detected*** only in the IS and CT and not in the CS and CA. To assess whether exposure to MeHg alters MT mRNA levels, rats were exposed for 14 days to one of five MeHg doses (0, 25, 50, 100, and 200 .mu.g/kg/day) via a subdermal osmotic pump. No changes were obsd. in either body wt. or in the wts. of the testis, epididymis, seminal ***vesicles*** , or ventral prostate between MeHg-treated and control rats. Serum testosterone levels were significantly decreased only at the highest MeHg dose. In the testis, MeHg treatment resulted in 2.5- to 7-fold increases in MT I mRNA levels. There were no changes in either MT II or MT III mRNA levels. In the initial segment of the epididymis. MT I mRNA levels were significantly increased only at the 50 .mu.g/kg/day dose, whereas there were no significant differences in MT II mRNA levels. In the caput epididymis, MT I mRNA levels were significantly lower at the 50 and 100 .mu.g/kg/day dose. MT II mRNA levels were also lower, with the exception of the 50 .mu.g/kg/day dose. Although MT III mRNA levels were lower at the two lower doses, levels were not different from controls in the two highest doses tested. In the corpus epididymis, MeHg did not alter MT I mRNA levels, and MT II was higher only in the 50 .mu.g/kg/day group. In the cauda epididymis, MT I mRNA levels were decreased in a dose-dependent manner by up to 63%. MT II levels were unaltered. Together these data indicate that exposure of adult rats to MeHg can modulate MT mRNA levels in both the testis and epididymal segments. Furthermore, changes in MT mRNA levels following exposure to MeHg differ between epididymal segments, suggesting either differences in MeHg accumulation or differences in MT modulation.
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 76 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:795994 CAPLUS
DN 132:31744
TI Gene ***probes*** used for genetic profiling in healthcare screening and planning
IN Roberts, Gareth Wyn
PA Genostic Pharma Ltd., UK
SO PCT Int. Appl., 745 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9964627 A2 19991216 WO 1999-GB1780 19990604 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
PRAI GB 1998-12099 A 19980606 GB 1998-13291 A 19980620 GB 1998-13611 A 19980624 GB 1998-13835 A 19980627 GB 1998-14110 A 19980701 GB 1998-14580 A 19980707 GB 1998-15438 A 19980716 GB 1998-15574 A 19980718 GB 1998-15576 A 19980718 GB 1998-16085 A 19980724 GB 1998-16086 A 19980724 GB 1998-16921 A 19980805 GB 1998-17097 A 19980807 GB 1998-17200 A 19980808 GB 1998-17632 A 19980814 GB 1998-17943 A 19980819
AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating that polymorphisms within a given gene can alter the functionality of the ***protein*** encoded by that gene thus leading to a variable physiol. response. In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the ***DNA*** sequence data to be aligned with the identification of genes central to the induction, development, progression and outcome of disease or physiol. states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified in order to provide crit. clin. information concerning individual prognosis is considerably less than the 100,000 thought to comprise the human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling technologies which comprises of the identification of the core group of genes and their sequence variants required to provide a broad base of clin. prognostic information - "genostics". The "Genostic" profiling of patients and persons will radically enhance the ability of clinicians, healthcare professionals and other parties to plan and manage healthcare provision and the targeting of appropriate healthcare resources to those deemed most in need. The use of this invention could also lead to a host of new applications for such profiling technologies, such as identification of persons with particular work or environment related risk, selection of applicants for employment, training or specific opportunities or for the enhancing of the planning and organization of health services, education services and social services.

L16 ANSWER 77 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:795993 CAPLUS
DN 132:31743
TI Gene ***probes*** used for genetic profiling in healthcare screening and planning
IN Roberts, Gareth Wyn
PA Genostic Pharma Limited, UK
SO PCT Int. Appl., 149 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9964626 A2 19991216 WO 1999-GB1779 19990604 W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG CA 2330929 AA 19991216 CA 1999-2330929 19990604 AU 9941586 A1 19991230 AU 1999-41586 19990604 AU 766544 B2 20031016 AU 9941587 A1 19991230 AU 1999-41587 19990604 GB 2339200 A1 20000119 GB 1999-12914 19990604 GB 2339200 B2 20010912 EP 1084273 A1 20010321 EP 1999-925207 19990604 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2003528564 T2 20030930 JP 2000-553616 19990604 US 2003198970 A1 20031023 US 2002-206568 20020729
PRAI GB 1998-12098 A 19980606 GB 1998-28289 A 19981223 GB 1998-16086 A 19980724 GB 1998-16921 A 19980805 GB 1998-17097 A 19980807 GB 1998-17200 A 19980808 GB 1998-17632 A 19980814 GB 1998-17943 A 19980819 US 1999-325123 B1 19990603 WO 1999-GB1779 W 19990604
AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating that polymorphisms within a given gene can alter the functionality of the ***protein*** encoded by that gene thus leading to a variable physiol. response. In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the ***DNA*** sequence data to be aligned with the identification

of genes central to the induction, development, progression and outcome of disease or physiol. states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified in order to provide crit. clin. information concerning individual prognosis is considerably less than the 100,000 thought to comprise the human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling technologies.

L16 ANSWER 78 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:760102 CAPLUS
DN 132:156670
TI Phospholipid-Model Membrane Interactions with Branched ***Polypeptide*** Conjugates of a Hepatitis a Virus ***Peptide*** Epitope
AU Nagy, Ildiko B.; Alsina, Maria A.; Haro, Isabel; Reig, Francesca; Hudecz, Ferenc
CS Research Group for Peptide Chemistry, Hungarian Academy of Science Eotvos L. University, Budapest, H-1518, Hung.
SO Bioconjugate Chemistry (2000), 11(1), 30-38 CODEN: BCCHES; ISSN: 1043-1802
PB American Chemical Society
DT Journal
LA English
AB To establish correlation between structural properties (charge, compn., and conformation) and membrane penetration capability, the interaction of epitope ***peptide*** -carrier constructs with phospholipid model membranes was studied. For this we have conjugated a linear epitope ***peptide*** , 110FWRGDLVFDFQV121 (110-121), from VP3 capsid ***protein*** of the Hepatitis A virus with polylysine-based branched ***polypeptides*** with different chem. characteristics. The epitope ***peptide*** elongated by one Cys residue at the N-terminal [C(110-121)] was attached to poly[Lys-(DL-Alam-Xi)] (i < 1, m .apprxeq. 3), where x = (AK), Ser (SAK), or Glu (EAK) by the amide-thiol heterobifunctional reagent, 3-(2-pyridyldithio)propionic acid N-hydroxy-succinimide ester. The interaction of these polymer-[C(110-121)] conjugates with phospholipid monolayers and bilayers was studied using DPPC and DPPC/PG (95/5 mol/mol) mixt. Changes in the fluidity of ***liposomes*** induced by these conjugates were ***detected*** by using two fluorescent ***probes*** 1,6-diphenyl-1,3,5-hexatriene (DPH) and sodium anilino naphthalene sulfonate (ANS). The ***binding*** of conjugates to the model membranes was compared and the contribution of the polymer component to these interactions were evaluated. We found that conjugates with polyanionic/EAK-[C(110-121)] or polycationic/SAK-[C(110-121)], AK-[C(110-121)]/character were capable to form monomol. layers at the air/water interface with structure dependent stability in the following order: EAK-[C(110-121)] > SAK-[C(110-121)] > AK-[C(110-121)]. Data obtained from penetration studies into phospholipid monolayers indicated that conjugate insertion is more pronounced for EAK-[C(110-121)] than for AK-[C(110-121)] or SAK-[C(110-121)]. Changes in the fluorescence intensity and in polarization of fluorescent ***probes*** either at the polar surface (ANS) or within the hydrophobic core (DPH) of the DPPC/PG ***liposomes*** suggested that all three conjugates interact with the outer surface of the bilayer. Marked penetration was documented by a significant increase of the transition temp. only with the polyanionic compd./EAK-[C(110-121)]. Taken together, we found that the ***binding*** /penetration of conjugates to phospholipid model membranes is dependent on the charge properties of the constructs. Considering that the orientation and no. of VP3 epitope ***peptides*** attached to branched ***polypeptides*** were almost identical, we can conclude that the structural characteristics (amino acid compn., charge, and surface activity) of the carrier have a pronounced effect on the conjugate-phospholipid membrane interaction. These observations suggest that the selection of polymer carrier for epitope attachment might significantly influence the membrane activity of the conjugate and provide guidelines for adequate presentation of immunogenic ***peptides*** to the cells.
RE.CNT 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 79 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:753427 CAPLUS
DN 131:334323
TI ***Liposome*** -enhanced test device and method
IN Durst, Richard Allen; Montagna, Richard A.; Baumer, Antje J.; Siebert, Sui Ti A.; Rule, Geoffrey S.
PA Cornell Research Foundation, Inc., USA; Innovative Biotechnologies International, Inc.
SO PCT Int. Appl., 61 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9960399 A1 19991125 WO 1999-US11246 19990521 W: CN, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE EP 1078260 A1 20010228 EP 1999-952121 19990521 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1998-86190P P 19980521 US 1998-106122P P 19981029 WO 1999-US11246 W 19990521
AB A test device and method for ***detecting*** or quantifying an analyte in a test sample employs an interdigitated electrode array and electroactive marker-encapsulating ***liposomes*** for signal generation and ***detection*** . The test device includes a contact portion on a first absorbent material, a capture portion either on the first absorbent material, or on a second absorbent material in fluid flow contact with the first absorbent material. The capture portion has a ***binding*** material specific for a portion of the analyte bound thereto. The devide further includes an electrode array including first and second conductors each having a plurality of fingers, wherein the fingers of the conductors are interdigitated. The electrode array is positioned to induce redox cycling of an electroactive marker released either in or beyond the capture portion, depending upon whether direct (proportional) or indirect (inversely proportional) ***detection*** or measurement is desired. In the method of the invention, the test sample is applied to the contact portion, and allowed to migrate along the absorbent material(s) into the capture portion. Either before of after

the migration, the test sample is contacted with a conjugate of ***liposomes*** and a second ***binding*** material for the analyte. To the extent that analyte is present in the sample, the conjugate is bound in the capture portion. By applying a voltage across the conductors, redox cycling of the marker is induced and a current is generated.
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 80 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:736750 CAPLUS
DN 131:347543
TI sequence and diagnostic and therapeutic applications for human prostapin gene in prostate cancer
IN Afar, Daniel E.; Hubert, Rene S.; Leong, Kahan; Raitano, Arthur B.; Saffran, Douglas C.
PA Urogenesys, Inc., USA
SO PCT Int. Appl., 64 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9958560 A2 19991118 WO 1999-US7123 19990331 WO 9958560 A3 20000120 W: AT, AT, AU, BR, CA, CH, CN, DE, DE, DK, DK, ES, FI, FI, GB, IL, JP, KR, MX, NO, NZ, RU, SE, SG, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE CA 2324206 AA 19991118 CA 1999-2324206 19990331 EP 1068320 A2 20010117 EP 1999-915178 19990331 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI AU 9933760 A1 19991129 AU 1999-33760 19990401
PRAI US 1998-80167P P 19980331 US 1998-85720P P 19980515 WO 1999-US7123 W 19990331
AB Described are a novel gene and protein expressed in normal prostate and locally confined prostate cancer, termed PROSTAPIN. It is a novel member of the Serpin gene family. In advanced stage prostate cancers, PROSTAPIN expression is lost or attenuated. Provided are ***cDNA*** and amino acid sequences encoding PROSTAPIN, vectors and host cells contg. PROSTAPIN polynucleotides, antibodies specifically reactive with PROSTAPIN, and various related compns. which are useful in ***detecting*** , diagnosing, prognosing, staging, monitoring, treating and detg. susceptibility to prostate cancer, particularly advanced stage and metastatic prostate cancer. Methods for gene therapy involving adenoviral and retroviral vectors delivered by ***liposomes*** are described. This gene maps to human chromosome 18q21.3 and is assocd. with the cell membrane. The intron/exon boundaries of this gene are also disclosed.

L16 ANSWER 81 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:704922 CAPLUS
DN 131:333024
TI sequence and expression pattern of rat and mouse brain transcription factors
IN Tao, Wufan; Lai, Eseng
PA Sloan-Kettering Institute for Cancer Research, USA
SO U.S., 40 pp., Cont.-in-part of U.S. 5,324,638. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI US 5976872 A 19991102 US 1995-331644 19950221 US 5324638 A 19940628 US 1992-882292 19920513 WO 9323430 A1 19931125 WO 1993-US4102 19930430 W: AU, CA, JP, KR, RU, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
PRAI US 1992-882292 A2 19920513 WO 1993-US4102 W 19930430
AB This invention provides an isolated, animal ***nucleic*** ***acid*** mol. encoding the Brain Factor-1, Brain Factor-2 and Brain Factor-3. This invention also provides expression vectors contg. these ***nucleic*** ***acid*** mols., host vector systems contg. the vectors and a method of producing the Brain factor comprising growing the host vector system under suitable conditions. This invention also provides a ***DNA*** vector which comprises the 5' nontranscribed region of the Brain Factor-1 gene, 3' nontranscribed region of the Brain Factor-1 gene and a gene of interest, linked operably. Expression is readily ***detectable*** by embryonic day 10 in the area of the neural tube which gives rise to the telencephalic ***vesicles*** suggesting a crit. role for this factor in the development of this region of the forebrain.
RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 82 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:695021 CAPLUS
DN 132:90732
TI Characterization of two fungal-elicitor-induced rice cDNAs encoding functional homologues of the rab-specific GDP-dissociation inhibitor
AU Kim, Woe Yeon; Kim, Cha Young; Cheong, Na Eun; Choi, Yeon Ok; Lee, Kyun Oh; Lee, Sung-Ho; Park, Jae Bong; Nakano, Akihiko; Bahk, Jeong Dong; Cho, Moo Je; Lee, Sang Yeol
CS Department of Biochemistry, Gyeongsang National University, Jinju, S. Korea
SO Planta (1999), 210(1), 143-149 CODEN: PLANAB; ISSN: 0032-0935
PB Springer-Verlag
DT Journal

LA English
AB By using the mRNA differential display approach to isolate defense signaling genes active at the early stage of fungal infection two cDNA fragments with high sequence homol. to rab-specific GDP-dissocn. inhibitors (GDIs) were identified in rice (Oryza sativa L.) suspension cells. Using polymerase-chain-reaction products as ***probes*** , two full-length cDNA clones were isolated from a cDNA library of fungal-elicitor-treated rice, and designated as OsGDI1 and OsGDI2. The deduced amino acid sequences of the isolated cDNAs exhibited substantial homol. to Arabidopsis rab-GDIs. Northern anal. revealed that transcripts ***detected*** with the 3'-gene-specific DNA ***probes*** accumulated to high levels within 30 min after treatment with a fungal elicitor derived from Magnaporthe grisea. The functionality of the OsGDIs was demonstrated by their ability to rescue the Sec19 mutant of Saccharomyces cerevisiae which is defective in ***vesicle*** transport. The ***proteins*** , expressed in Escherichia coli, cross-reacted with a polyclonal antibody prepd. against bovine rab-GDI. Like bovine rab-GDI, the OsGDI ***proteins*** efficiently dissocd. rab3A from bovine synaptic membranes. Using the two-hybrid system, it was shown that the OsGDIs specifically interact with the small GTP-***binding*** ***proteins*** belonging to the rab subfamily. The specific interaction was also demonstrated in vitro by glutathione S-transferase resin pull-down assay.
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 83 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:686625 CAPLUS
DN 131:319661
TI An insulin-dependent membrane aminopeptidase from GLUT-4 containing ***vesicles*** and a ***cDNA*** encoding it
IN Knowles, William J.; Guralski, Donna; Letsinger, John T.; Haigh, Wallace; Hart, John T.; Clairmont, Kevin B.
PA Bayer Corporation, USA
SO U.S., 51 pp., Cont.-in-part of U.S. Ser. No. 309,232, abandoned. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI US 5972680 A 19991026 US 1995-530792 19950919 US 5968764 A 19991019 US 1995-437116 19950504 CA 2200354 AA 19960328 CA 1995-2200354 19950919
PRAI US 1994-309232 B2 19940920
AB An aminopeptidase which cleaves insulin has been purified from GLUT-4-contg. ***vesicles*** and cloned. The peptidase has a measured mass of .apprx.165 kDa, but is 110 kDa in its deglycosylated state. It has a predicted mol. wt. of 117,239 based on the amino acid sequence predicted from the ***cDNA*** . Modulators of the activity of the aminopeptidase and a method for treating syndromes of insulin resistance, including diabetes, by administration of such a modulator are also claimed. Antibodies are raised against peptides of the enzyme. The enzyme was obtained from immunoaffinity-purified GLUT-4 ***vesicles*** as a 165-kDa protein and sequences from tryptic fragments identified it as an aminopeptidase and this was confirmed by anal. of substrate preferences and inhibition studies. A ***cDNA*** was cloned by PCR with amino acid sequence-derived primers.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 84 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:661892 CAPLUS
DN 132:31357
TI The stability of ***DNA*** triplexes inside cells as studied by iodine-125 radioprinting
AU Sedelnikova, Olga A.; Panyutin, Igor G.; Luu, Andrew N.; Neumann, Ronald D.
CS Department of Nuclear Medicine, Warren G. Magnuson Clinical Center, National Institutes of Health, Bethesda, MD, 20892, USA
SO Nucleic Acids Research (1999), 27(19), 3844-3850 CODEN: NARHAD; ISSN: 0305-1048
PB Oxford University Press
DT Journal
LA English
AB We studied the stability of a ***DNA*** triplex resulting from the binding of a 38 nt long purine motif triplex-forming oligonucleotide (TFO) to a covalently closed plasmid contg. a target sequence from the human HPRT gene. Our in vitro expts. showed that the triplex formed at plasmid and TFO concns. as low as 10-9 M. Once formed, the triplex was remarkably stable and could withstand 10 min incubation at 65.degree.. We next delivered these TFO-plasmid complexes into cultured human cells. To monitor the TFO-plasmid complexes inside cells we applied a new technique that we call "radioprinting". Because the TFO was 125I labeled, we could quant. monitor the triplexes by measuring 125I-induced ***DNA*** strand breaks in the target plasmid sequence. We found that the triplexes remain stable inside the cells for at least 48 h. Based on these findings we propose using TFO for indirect labeling of intact plasmid ***DNA*** . As a demonstration, we show that the intracellular distribution of a fluorescein-labeled TFO was different when it was ***liposome*** -delivered into cultured human cells alone or in a complex with the plasmid. In the latter case, the fluorescence was ***detected*** in nearly all the cells while ***detection*** of the plasmid by use of a marker gene (.beta.-galactosidase) revealed expression of the gene in only half of the cells.
RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 85 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:656852 CAPLUS
DN 132:61810

TI Ultrastructural localization of neuropeptide Y and expression of its ***mRNA*** in the glomus cells distributed in the wall of the common carotid artery of the chicken
AU Kameda, Yoko; Miura, Masaaki; Ohno, Sae
CS Department of Anatomy, Kitasato University School of Medicine, Kanagawa, 228, Japan
SO Journal of Comparative Neurology (1999), 413(2), 232-240 CODEN: JCNEAM; ISSN: 0021-9967
PB Wiley-Liss, Inc.
DT Journal
LA English
AB In the chicken, glomus cells are widely distributed in the carotid body and in the wall of the common carotid artery and around its branches. The cells located in the wall of the common carotid artery express intense immunoreactivity for neuropeptide Y (NPY). They contain abundant dense-cored ***vesicles*** ranging 70-220 nm in diam. In this study, we examd. ultrastructural localization of NPY in the glomus cells by using the postembedding immunogold method. Gold particles representing immunoreactivity for NPY were specifically localized on the dense-cored ***vesicles*** of the glomus cells. In addn., the localization of NPY ***mRNA*** in the glomus cells was examd. by in situ ***hybridization*** with digoxigenin-labeled chicken NPY cRNA ***probe*** . A strong ***hybridization*** signal for NPY ***mRNA*** was ***detected*** in the glomus cells located in the wall of the common carotid artery. Few glomus cells of the carotid body, however, displayed labeling for NPY ***mRNA*** . Northern blot anal. with the chicken NPY exon 4 ***probe*** demonstrated that a single band for NPY ***mRNA*** was present in the poly (A)+ ***RNA*** isolated from the common carotid artery where the glomus cells were distributed. Furthermore, the expression of NPY ***mRNA*** in the common carotid artery was confirmed by the reverse transcription- polymerase chain reaction. These results indicate that the chicken glomus cells are able to produce NPY but that the level of its translation varies according to the location of the cells.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 86 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:600771 CAPLUS
DN 131:296771
TI Purification and characterization of fertility-associated antigen (FAA) in bovine seminal fluid
AU McCauley, Tod C.; Zhang, Huanmin; Bellin, Mary E.; Ax, Roy L.
CS Department of Animal Sciences, University of Arizona, Tucson, AZ, 85721-0038, USA
SO Molecular Reproduction and Development (1999), 54(2), 145-153 CODEN: MREDEE; ISSN: 1040-452X
PB Wiley-Liss, Inc.
DT Journal
LA English
AB Heparin- ***binding*** ***proteins*** (HBP) recognized by a monoclonal antibody (M1) are produced by male accessory sex glands and ***bind*** to distinct regions of ejaculated bull sperm. Immunoblots of sperm ***proteins*** ***probed*** with M1 identified HBP variants of approx. 31-, 24-, and 21.5-kDa that were assocd. with increased fertility of bulls. The purpose of this study was to identify the 31-kDa HBP known as fertility-assocd. antigen (FAA). FAA was isolated by heparin-affinity chromatog. and reversed-phase high performance liq. chromatog. near homogeneity. Biochem. characterization indicated that FAA was an unglycosylated, basic ***protein*** . FAA ***protein*** was ***detected*** in seminal ***vesicle*** and prostate gland homogenates, and FAA extd. from sperm membranes by treatment with hypertonic media was identical biochem. to seminal fluid-derived FAA. N-terminal sequence anal. of purified FAA yielded a 26 amino acid sequence (L K I X S F N V R S F G E S K K A G F N A M R V I V) with 73% identity to a recently identified human DNase (DNase) I-like ***protein*** . Two internal amino acid sequences generated from lys-C digested FAA were 85% and 92% identical to the same DNase I-like ***protein*** . In conclusion, we have identified a bovine seminal heparin- ***binding*** ***protein*** that ***binds*** to sperm and is indicative of bull fertility as being similar to the family of DNase I-like ***proteins*** . These data demonstrate the presence of a novel DNase I-like ***protein*** in bull accessory sex glands and form the groundwork for the identification of a candidate genetic marker for fertility of bulls.
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 87 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:585181 CAPLUS
DN 131:282823
TI Ca2+-Induced Increased Lipid Packing and Domain Formation in Submitochondrial Particles. A Possible Early Step in the Mechanism of Ca2+-Stimulated Generation of Reactive Oxygen Species by the Respiratory Chain
AU Grijalba, Mercedes T.; Vercesi, Anibal E.; Schreier, Shirley
CS Department of Biochemistry Institute of Chemistry, Universidade de Sao Paulo, Sao Paulo, CEP 05599-970, Brazil
SO Biochemistry (1999), 38(40), 13279-13287 CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB Ca2+ and Pi accumulation by mitochondria triggers a no. of alterations leading to nonspecific increase in inner membrane permeability [Kowaltowski, A. J., et al. (1996) J. Biol. Chem. 271, 2929-2934]. The mol. nature of the membrane perturbation that precedes oxidative damage is still unknown. EPR spectra of spin ***probes*** incorporated in submitochondrial particles (SMP) and in model membranes suggest that Ca2+-cardiolipin (CL) complexation plays an important role. Ca2+-induced lipid domain formation

was ***detected*** in SMP but not in mitoplasts, in SMP extd. lipids, or in CL-contg. ***liposomes*** . The results were interpreted in terms of Ca2+ sequestration of CL tightly bound to membrane ***proteins*** , in particular the ADP-ATP carrier, and formation of CL-enriched strongly immobilized clusters in lipid shells next to boundary lipid. The in-plane lipid and ***protein*** rearrangement is suggested to cause increased reactive oxygen species prodn. in succinate-supplemented, antimycin A-poisoned SMP, favoring the formation of carbon-centered radicals, ***detected*** by EPR spin trapping. Removal of tightly bound CL is also proposed to cause ***protein*** aggregation, facilitating intermol. thiol oxidn. Lipid peroxidn. was also monitored by the disappearance of the nitroxide EPR spectrum. The decay was faster for nitroxides in a more hydrophobic environment, and was inhibited by butylated hydroxytoluene, by EGTA, or by substituting Mg2+ for Ca2+. In addn., Ca2+ caused an increase in permeability, evidenced by the release of carboxyfluorescein from respiring SMP. The results strongly support Ca2+ ***binding*** to CL as one of the early steps in the mol. mechanism of Ca2+-induced nonspecific inner mitochondrial membrane permeabilization.
RE.CNT 54 THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 88 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:553616 CAPLUS
DN 131:332803
TI Cloning, gene expression, and characterization of CP27, a novel gene in mouse embryogenesis
AU Diekwisch, Thomas G. H.; Marches, F.; Williams, A.; Luan, X.
CS Center for Craniofacial Molecular Biology, University of Southern California, Los Angeles, CA, 90033, USA
SO Gene (1999), 235(1-2), 19-30 CODEN: GENED6; ISSN: 0378-1119
PB Elsevier Science B.V.
DT Journal
LA English
AB The authors report the full-length sequencing, tissue-specific expression, and immunolocalization of cp27, a novel gene in mouse embryogenesis. The cp27 gene was isolated and cloned from a mouse E11 .lambda.gt11 library using a peptide antibody that recognized a distinct expression pattern in mouse craniofacial development. The cp27 gene contains an open reading frame of 295 amino acids corresponding to a predicted mol. mass of 33 kDa. On Western blots, a polyclonal antibody against CP27 ***detected*** a single epitope at 27 kDa. The putative CP27 protein has an isoelec. point of 4.75 and features a distinct helix-loop-helix structure according to prediction algorithms. The authors have cloned the human cp27 gene and mapped it to a locus on the human chromosome 16 which is in proximity to several loci assocd. with inherited craniofacial diseases such as fanconi anemia type A. Northern blot anal. of ***RNA*** from multiple mouse tissues demonstrated high levels of expression in developing mouse teeth, heart, lung, and liver of a single transcript of approx, 1.8 kbp. In situ ***hybridization*** using a radioactive ***RNA*** ***probe*** resulted in distinct signals in the developing neuroepithelium, cerebellum, heart, lung, liver, teeth, salivary glands, and periosteum of developing bones. Immunohistochem. staining of developing mouse tissues ***detected*** epitopes specific for CP27 in the mesenchyme surrounding the primary brain ***vesicles*** , in basement membranes, in the periosteum, in salivary glands, and in the stellate reticulum of teeth. Thus, CP27 represents a unique gene product involved in mouse embryogenesis.
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 89 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:453592 CAPLUS
DN 131:318965
TI Lectins: sources, activities, and applications
AU Singh, R. S.; Tiwary, A. K.; Kennedy, J. F.
CS Department of Biotechnology, Punjabi University, Patiala, 147 002, India
SO Critical Reviews in Biotechnology (1999), 19(2), 145-178 CODEN: CRBTE5; ISSN: 0738-8551
PB CRC Press LLC
DT Journal; General Review
LA English
AB A review with ~240 refs. Lectins are glycoproteins or oligomeric ***proteins*** with one or more sugar- ***binding*** site(s) per subunit. These mols. are of nonimmune origin and ***bind*** reversibly with specific sugars and ppt. polysaccharides, glycoproteins, and glycolipids bearing specific sugars, thus acting as cell recognizers. They play a key role during the initiation of infections in the altered behavior of cells during metastasis and in protection of neonates against environmental antigens. The specificity of lectins for certain sugars has been used as ***probes*** to ***detect*** cell surface sugars, enzymes, Igs, and to identify tumorigenic cells. Lectin- ***liposome*** conjugates have also found applications for targeted drug delivery. In addn., they have been used for flocculation of bacterial suspensions in the industry. This review discusses various sources of lectins and the mechanism behind their potential role in diverse fields of biol. interest.
RE.CNT 266 THERE ARE 266 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 90 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:416403 CAPLUS
DN 131:197382
TI Complementary deoxyribonucleic acid cloning and tissue expression of BSP-A3 and BSP-30-kDa: phosphatidylcholine and heparin-***binding*** ***proteins*** of bovine seminal plasma
AU Salois, Dominic; Menard, Martin; Paquette, Yves; Manjunath, Puttaswamy

CS Departments of Medicine and of Biochemistry, Guy-Bernier Research Centre, University of Montreal, Montreal, QC, H1T 2M4, Can.
SO Biology of Reproduction (1999), 61(1), 288-297 CODEN: BIREBV; ISSN: 0006-3363
PB Society for the Study of Reproduction
DT Journal
LA English
AB BSP-A1, BSP-A2, BSP-A3, and BSP-30-kDa are four major ***proteins*** of bovine seminal plasma (BSP ***protein*** family). These heparin- and phosphatidylcholine- ***binding*** ***proteins*** potentiate the capacitation of spermatozoa. Here we detd. the complete sequences of the two ***cDNAs*** coding for the BSP-A3 and BSP-30-kDa ***proteins*** . Degenerate oligonucleotides designed on the basis of the primary sequences of the ***proteins*** were used as primers in reverse transcription-polymerase chain reaction, with ***cDNA*** prepns. of bovine seminal ***vesicles*** as templates, to amplify an internal fragment of each BSP ***cDNA*** . Specific oligonucleotides designed on the basis of these partial ***cDNA*** sequences were used to clone the two complete ***cDNAs*** by using the 3' rapid amplification of ***cDNA*** ends (RACE) and 5' RACE methods. We also verified the expression of all members of the bovine BSP ***protein*** family in several adult bovine tissues by RNase protection assays. The results indicated that each BSP ***protein*** ***mRNA*** is expressed only in seminal ***vesicles*** and in the ampullae. Homologous genes were ***detected*** in human, rat, hamster, and rabbit genomic ***DNA*** , using high-stringency Southern ***hybridization*** with a specific BSP-30-kDa ***cDNA*** ***probe*** .
RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 91 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:388292 CAPLUS
DN 131:41278
TI Cadherin-like ***polypeptides*** , methods and compositions related thereto
IN Israel, David
PA Ontogeny, Inc., USA
SO PCT Int. Appl., 91 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9929860 A1 19990617 WO 1998-US9151 19980508 W: AU, CA, JP RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE AU 9939082 A1 19990628 AU 1999-39082 19980508 CA 2312697 AA 19990617 CA 1998-2312697 19981208 WO 9929853 A1 19990617 WO 1998-US25981 19981208 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG AU 9918073 A1 19990628 AU 1999-18073 19981208 EP 1037984 A1 20000927 EP 1998-962946 19981208 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2001526030 T2 20011218 JP 2000-524425 19981208
PRAI US 1997-67887P P 19971208 WO 1998-US9151 W 19980508 WO 1998-US25981 W 19981208
AB The present invention concerns the discovery of a new family of cadherin-related genes, referred to herein as "ontherins". As described herein, the vertebrate ontherin ***proteins*** exhibit spatially restricted expression domains indicative of important roles in tissue homeostasis.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 92 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:258617 CAPLUS
DN 131:42073
TI Arabidopsis Sec21p and Sec23p homologs. Probable coat ***proteins*** of plant COP-coated ***vesicles***
AU Movafeghi, Ali; Happel, Nicole; Pimpl, Peter; Tai, Gui-Hua; Robinson, David G.
CS Abteilung Strukturelle Zellphysiologie, Albrecht-von-Haller Institut fur Pflanzenwissenschaften, Universitat Gottingen, Gottingen, D-37073, Germany
SO Plant Physiology (1999), 119(4), 1437-1445 CODEN: PLPHAY; ISSN: 0032-0889
PB American Society of Plant Physiologists
DT Journal
LA English
AB Intracellular ***protein*** transport between the endoplasmic reticulum (ER) and the Golgi app. and within the Golgi app. is facilitated by COP (coat ***protein***)-coated ***vesicles*** . Their existence in plant cells has not yet been demonstrated, although the GTP- ***binding*** ***proteins*** required for coat formation have been identified. Antisera against glutathione-S-transferase-fusion ***proteins*** prepd. with cDNAs encoding the Arabidopsis Sec21p and Sec23p homologs (AtSec21p and AtSec23p, resp.) were generated. The former is a constituent of the COPI ***vesicle*** coatomer, and the latter is part of the Sec23/24p dimeric complex of the COPII ***vesicle*** coat. Cauliflower (Brassica oleracea) inflorescence homogenates were ***probed*** with these antibodies and the presence of AtSec21p and AtSec23p antigens in both the cytosol and membrane fractions of the cell was demonstrated. The membrane-assocd. forms of both antigens can be solubilized by treatments typical for extrinsic ***proteins*** . The amts. of the cytosolic antigens relative to the membrane-bound forms increase after cold treatment, and the two antigens belong to different ***protein*** complexes with mol. sizes comparable to the corresponding nonplant coat

proteins . Sucrose-d.-gradient centrifugation of microsomal cell membranes from cauliflower suggests that, although AtSec23p seems to be preferentially assocd. with ER membranes, AtSec21p appears to be bound to both the ER and the Golgi membranes. This could be in agreement with the notion that COPII ***vesicles*** are formed at the ER, whereas COPI ***vesicles*** can be made by both Golgi and ER membranes. Both AtSec21p and AtSec23p antigens were ***detected*** on membranes equilibrating at sucrose densities equiv. to those typical for in vitro-induced COP ***vesicles*** from animal and yeast systems. Therefore, a further purifn. of the putative plant COP ***vesicles*** was undertaken.
RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 93 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:203798 CAPLUS
DN 131:30630
TI Expression of the cystic fibrosis transmembrane conductance regulator (CFTR) ***mRNA*** in normal and pathological adult human epididymis
AU Patrizio, P.; Salameh, W. A.
CS Male Infertility Program, Department of Obstetrics & Gynecology, Division of Human Reproduction, University of Pennsylvania Health System, Philadelphia, PA, 19104-4283, USA
SO Journal of Reproduction and Fertility, Supplement (1998), 53(Epididymis: Cellular and Molecular Aspects), 261-270 CODEN: JRFSAR; ISSN: 0449-3087
PB Journals of Reproduction and Fertility Ltd.
DT Journal
LA English
AB The pathogenesis of the aberrant development of the male genital tract (epididymis, vas deferens and seminal ***vesicles***) seen in patients with congenital bilateral absence of the vas deferens (CBAVD) is still unclear. Since men with CBAVD carry mutations in the cystic fibrosis transmembrane conductance regulator gene (CFTR), it is likely that CFTR ***mRNA*** of the translated protein plays a major role in the pathogenesis of CBAVD. The aim of this study was to compare the pattern of expression of CFTR ***mRNA*** in epididymides of men with CBAVD and other types of obstruction (post-vasectomy and post-inflammatory) with that of normal non-obstructed adult epididymis. Epididymal biopsies were obtained at the time of microsurgical epididymal sperm aspiration procedures or during vaso-epididymostomy reanastomosis. A normal epididymis was obtained from an orchiectomy specimen. After std. processing for in situ ***hybridization*** , tissue sections were ***hybridized*** with CFTR gene- ***probe*** labeled by incorporation of digoxigenin-dUTP. After ***hybridization*** the signal was ***detected*** by an alk. phosphatase-tagged antidigoxigenin antibody. CFTR ***mRNA*** was clearly identified in the columnar epithelium of the normal adult epididymis and vas deferens and the signal intensity was greatest in the most proximal regions of the caput epididymis. In contrast, men with genital tract obstructions due to CBAVD or post-vasectomy or post-inflammatory obstructions, had sloughing of the epithelial cells lining the lumen and as a consequence CFTR ***mRNA*** expression was lacking. In one subject (post-vasectomy obstruction), some residual caput epididymal epithelium was preserved and CFTR ***mRNA*** was ***detected*** . The abundant CFTR ***mRNA*** expression in the proximal caput of the epididymis and vas deferens under normal conditions strongly favors the hypothesis of an early obstructive process in the pathogenesis of CBAVD. The absent or severely reduced activity of CFTR protein affects the ionic exchange and fluid content within the epididymal lumen and this, in turn, can lead to excessive viscosity of the epididymal fluid, sloughing of epithelial cells expressing CFTR and further redn. in the amt. of CFTR activity. As a consequence, variable segments of the epididymis and the vas deferens may be blocked and progressively obliterated. The epididymal lumen obstruction could also sustain the anatomical defects by not allowing testosterone to exert a local action on the mesonephric duct.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 94 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:199302 CAPLUS
DN 130:235149
TI Prostate specific membrane antigen (PSM) is expressed in various human tissues. Implication for the use of PSM reverse transcription polymerase chain reaction to ***detect*** hematogenous prostate cancer spread
AU Renneberg, Heiner; Friedetzky, Anke; Konrad, Lutz; Kurek, Ralf; Weingaertner, Karl; Wennemuth, Gunther; Tunn, Ulf W.; Aumueller, Gerhard
CS Dep. Anatomy Cell Biology, Univ. Marburg, Marburg, D-35033, Germany
SO Urological Research (1999), 27(1), 23-27 CODEN: URLRA5; ISSN: 0300-5623
PB Springer-Verlag
DT Journal
LA English
AB ***Detection*** of prostate-specific membrane antigen (PSM)- ***mRNA*** expression in blood using reverse transcription PCR (RT-PCR) is discussed as a new diagnostic marker of circulating micrometastases in prostate cancer. The authors applied the RT-PCR to human tissues and obtained pos. signals for PSM transcripts in genital and multiple extra-genital tissue sites. The ***cDNAs*** were prepd. from human tissues and prostatic cell lines. RT-PCR and nested RT-PCR for PSM was performed with primers derived from the published PSM ***cDNA*** . The RT-PCR fragments obtained were cloned and showed 100% sequence homol. to PSM. Southern blot ***hybridization*** with labeled ***probes*** was used to confirm the specificity of the amplicons. In addn. to the known PSM expression in the human brain, PSM- ***mRNA*** was ***detected*** in ***cDNA*** isolated from testis, epididymis, and seminal ***vesicles*** , and in the PC-3 prostatic cancer cell line. The authors found PSM- ***mRNA*** in heart, liver, lung, kidney, spleen, and thyroid gland. The results indicate that PSM expression is not restricted to the

prostate gland, but represents a more general component of genital and extra-genital human tissues. This must be considered when RT-PCR and nested RT-PCR screening for PSM expression is performed as a diagnostic measure in blood from prostate cancer patients.
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 95 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:115896 CAPLUS
DN 130:264899
TI Growing pollen tubes possess a constitutive alkaline band in the clear zone and a growth-dependent acidic tip
AU Feijo, J. A.; Sainhas, J.; Hackett, G. R.; Kunkel, J. G.; Hepler, P. K.
CS Department Biologia Vegetal, Faculdade de Ciencias, Universidade de Lisboa, Lisbon, P-1749-016, Port.
SO Journal of Cell Biology (1999), 144(3), 483-496 CODEN: JCLBA3; ISSN: 0021-9525
PB Rockefeller University Press
DT Journal
LA English
AB Using both the proton selective vibrating electrode to ***probe*** the extracellular currents and ratiometric wide-field fluorescence microscopy with the indicator 2',7'-bis-(2-carboxyethyl)-5-(and-6)-carboxyfluorescein (BCECF)-dextran to image the intracellular pH, the authors have examd. the distribution and activity of protons (H+) assocd. with pollen tube growth. The intracellular images reveal that lily pollen tubes possess a constitutive alk. band at the base of the clear zone and an acidic domain at the extreme apex. The extracellular observations, in close agreement, show a proton influx at the extreme apex of the pollen tube and an efflux in the region that corresponds to the position of the alk. band. The ability to ***detect*** the intracellular pH gradient is strongly dependent on the concn. of exogenous buffers in the cytoplasm. Thus, even the indicator dye, if introduced at levels estd. to be of 1.0 .mu.M or greater, will dissipate the gradient, possibly through shuttle buffering. The apical acidic domain correlates closely with the process of growth, and thus may play a direct role, possibly in facilitating ***vesicle*** movement and exocytosis. The alk. band correlates with the position of the reverse fountain streaming at the base of the clear zone, and may participate in the regulation of actin filament formation through the modulation of pH-sensitive actin ***binding*** ***proteins*** . These studies not only demonstrate that proton gradients exist, but that they may be intimately assocd. with polarized pollen tube growth.
RE.CNT 80 THERE ARE 80 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 96 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:71434 CAPLUS
DN 130:220870
TI Spatial and temporal expression of the cystathionine .beta.-synthase gene during early human development
AU Quere, Isabelle; Paul, Veronique; Rouillac, Christelle; Janbon, Charles; London, Jacqueline; Demaille, Jacques; Kamoun, Pierre; Dufier, Jean-Louis; Abitbol, Marc; Chasse, Jean-Francois
CS CNRS URA 1335, Faculte de Medecine Necker, Hopital Necker Enfants Malades, Paris, 75015, Fr.
SO Biochemical and Biophysical Research Communications (1999), 254(1), 127-137 CODEN: BBRCA9; ISSN: 0006-291X
PB Academic Press
DT Journal
LA English
AB The cystathionine-.beta. synthase (CBS) gene expression pattern during early human embryogenesis (3-6 wk post-conception) by in situ ***hybridization*** and in fetal and adult tissue by Northern Blot anal. is reported. ***Probes*** were chosen to recognize either the common sequence to all known CBS ***mRNAs*** or the sequences of 2 different major exons 1 which the authors previously identified. The authors demonstrated by in situ ***hybridization*** that CBS was continuously expressed from the earliest stages studied (22 days post-conception) during embryogenesis in the tissues of developing embryos which will after birth present clin. abnormalities in homocystinuria patients. It was expressed at an esp. high level in the neural and cardiac systems until the liver primordium appeared. In the embryonic central nervous system, the whole neural tube and primary brain ***vesicles*** were labeled. Secondary brain ***vesicle*** labeling was dependent on neuroepithelium differentiation. The ventricular layer of the rhombencephalon, cranial nerve nuclei, and the cerebellar cortex derived from the rhombencephalon ventricular layer were strongly labeled. The thalamus and other derivs. of the diencephalon plate, the neuroblastic layer of the retina, lens, and dorsal root ganglia were labeled. After 35 days post-conception, CBS ***mRNA*** was ***detected*** in endocardial cells and in cells derived from the neural crest of the heart and in particular developing mesodermic regions such as the primitive hepatocytes of the liver, mesonephros ***vesicles*** , various endocrine glands, and developing bones. The authors could not ***detect*** tissue specificity of different ***probes*** at this embryonic stage. Northern blot anal. consistently ***detected*** ***mRNA*** species in fetal 25-wk post-conception brain, liver, and kidney. The common ***cDNA*** ***probe*** revealed the 2.5- and 3.7-kb ***mRNA*** species from brain, liver, and kidney. The exon 1b ***probe*** ***detected*** only the 2.5-kb ***mRNA*** and the exon 1c ***probe*** the 3.7-kb ***mRNA*** in these 3 tissues. In adult tissue, the 1b ***probe*** ***detected*** only the 2.5-kb ***mRNA*** and the 1c ***probe*** only the 3.7-kb ***mRNA*** in the liver. (c) 1999 Academic Press.
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 97 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:41631 CAPLUS
DN 130:249872

TI In vivo expression of transcripts encoding the Glvr-1 phosphate transporter/retrovirus receptor during bone development
AU Palmer, G.; Zhao, J.; Bonjour, J.; Hofstetter, W.; Caverzasio, J.
CS Division of Bone Diseases, WHO Collaborating Center for Osteoporosis and Bone Diseases, Department of Internal Medicine, University of Geneva, Geneva, CH-1211, Switz.
SO Bone (New York) (1999), 24(1), 1-7 CODEN: BONEDL; ISSN: 8756-3282
PB Elsevier Science Inc.
DT Journal
LA English
AB In vitro observations suggest that inorg. phosphate (Pi) transport plays an important functional role in osteogenic cells and in their matrix ***vesicles*** for the initiation of matrix calcification. Recent studies have shown that the type III sodium-dependent Pi transporters, Glvr-1 and Glvr-2, are expressed in human osteoblast-like cells and have suggested a potential role for type III transporters in regulated Pi handling in osteogenic cells. To address the relevance of these findings in the context of bone formation in vivo and, in particular, in relation to matrix calcification, we investigated expression of the Glvr-1 transporter by in situ ***hybridization*** in developing embryonic murine metatarsals, using human Glvr-1 ***cDNA*** as a ***probe*** . In this model of endochondral ossification, expression of transcripts encoding Glvr-1 could be ***detected*** from day 17 of embryonic development. A ***hybridization*** signal for Glvr-1 was specifically obsd. in a subset of hypertrophic chondrocytes and could not be ***detected*** in osteoblasts. The expression of Glvr-1 ***mRNA*** was compared with that of transcripts encoding extracellular matrix proteins. Glvr-1 ***mRNA*** expression was confined to a population of early hypertrophic chondrocytes expressing type X collagen and to slightly more mature cells that express transcripts encoding osteopontin but lack type X collagen ***mRNA*** . No Glvr-1 transcripts were ***detected*** in fully differentiated hypertrophic chondrocytes. This pattern of Glvr-1 ***mRNA*** expression was maintained throughout embryonic development until after birth. In conclusion, the Glvr-1 phosphate transporter is selectively expressed in a subset of hypertrophic chondrocytes during endochondral bone formation, in a region where matrix mineralization proceeds. This observation represents the first in vivo evidence consistent with a potential role for this phosphate transporter in matrix calcification.
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 98 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:9685 CAPLUS
DN 130:86155
TI Angiogenic modulation by Notch4 signal transduction
IN Kitajewski, Jan; Uyttendaele, Hendrik
PA The Trustees of Columbia University In the City of New York, USA
SO PCT Int. Appl., 118 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9857621 A1 19981223 WO 1998-US13050 19980618 W: AU, CA, JP, MX, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE AU 9881628 A1 19990104 AU 1998-81628 19980618 US 6379925 B1 20020430 US 1999-467997 19991220
PRAI US 1997-878351 A2 19970618 WO 1998-US13050 W 19980618
AB This invention provides methods of modulating angiogenesis, including promoting or inhibiting angiogenesis, e.g., in connection with treating abnormalities including hemangiomas, hemangiosarcomas, Kaposi's Sarcoma, ischemic disorders, and wounds. These methods involve administration of compds. that are selective agonists or antagonists of Notch4 ***protein*** . In addn., this invention provides an isolated nucleic acid mol. encoding a Notch4, an isolated Notch4 ***protein*** , vectors comprising an isolated nucleic acid mol. encoding a Notch4 ***protein*** , cells comprising such vectors, antibodies directed to Notch4 ***protein*** , nucleic acid ***probes*** useful for ***detecting*** nucleic acids encoding Notch4 ***protein*** , and antisense oligonucleotides complementary to any unique sequences of a nucleic acid mol. which encodes Notch4 ***protein*** .
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 99 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:738302 CAPLUS
DN 130:152482
TI Distribution of A1 adenosine receptors in human neutrophils: cytochemical analysis using CHAox-biotin-streptavidin-gold complex
AU Falleni, A.; Gremigni, V.; Trincavelli, L.; Fiorini, M.; Salvetti, F.; Lucacchini, A.; Martini, C.
CS Dipartimento di Morfologia Umana e Biologia Applicata, Universita di Pisa, Italy
SO Electron Microscopy 1998, Proceedings of the International Congress on Electron Microscopy, 14th, Cancun, Mex., Aug. 31-Sept. 4, 1998 (1998), Volume 4, 909-910. Editor(s): Calderon Benavides, Hector A.; Jose Yacaman, Miguel. Publisher: Institute of Physics Publishing, Bristol, UK. CODEN: 66YYA4
DT Conference
LA English
AB It has been shown previously that the effect of adenosine on neutrophil chemotaxis is mediated by A1 adenosine receptors which are coupled to a Gi-transduction ***protein*** (F. R. Rose, et al., 1988). Here, A1 receptors were ***detected*** by T.E.M. by using an adenosine analog, 3H-6N-cyclohexyladenosine (CHA) as specific ligand, and a covalently linked CHAox-biotin was synthesized in order to visualize the A1 receptors on the cell surface and internalization of the ligand-receptor complex on human polymorphonuclear leukocytes. At 0 C the CHAox-biotin-streptavidin gold complex was distributed on neutrophil membranes either as

single particles or as small groups of particles. After incubation at 37 C internalization of the complex after 5 min occurred inside pinocytotic smooth-surfaced ***vesicles*** . After 60 min some granules of medium electron-d. were labeled with gold particles. Neutrophils incubated with R-PIA (R-phenylisopropyladenosine) showed no appreciable surface ***binding*** , suggesting that a specific A1 receptor-mediated system is involved in internalization of the macromol. ***probe*** . The presence of FLMP chemoattractant receptors in specific granules of neutrophils and the ultrastructural localization of A1 adenosine receptors in the same granules, could suggest a modulatory effect of these receptors on FMLP-induced chemotaxis and phagocytosis.
RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 100 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:672153 CAPLUS
DN 130:34603
TI Intracellular localization of poliovirus plus- and minus-strand ***RNA*** visualized by strand-specific fluorescent in situ ***hybridization***
AU Bolten, Roger; Egger, Denise; Gosert, Rainer; Schaub, Gabriela; Landmann, Lukas; Bienz, Kurt
CS Institute for Medical Microbiology, University of Basel, Basel, CH-4003, Switz.
SO Journal of Virology (1998), 72(11), 8578-8585 CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB The time courses of poliovirus plus- and minus-strand ***RNA*** synthesis in infected HEp-2 cells were monitored sep., using a quant. RNase assay. In parallel, viral ***RNA*** and proteins were located in situ by confocal microscopy within cells fixed by a protocol detd. to retain their native size and shape. Plus- and minus-strand ***RNAs*** were visualized by fluorescent in situ ***hybridization*** (FISH) with strand-specific riboprobes. The ***probes*** were labeled with different fluorochromes to allow for the simultaneous ***detection*** of plus- and minus-strand ***RNA*** . The FISH expts. showed minus-strand ***RNA*** to be present in distinct, regularly sized, round structures throughout the viral replication cycle. Plus-strand ***RNA*** was found in the same structures and also in smaller clusters of ***vesicles*** . Assocn. of viral ***RNA*** with membranes was demonstrated by combining FISH with immunofluorescence (IF) ***detection*** of the viral 2B- and 2C-contg. P2 proteins, which are known to be markers for virus-induced membranes. At early times postinfection, the virus-induced membranous structures were distributed through most of the cytoplasm, whereas around peak ***RNA*** synthesis, both ***RNA*** -assocd. membranous structures migrated to the center of the cell. During this process, the plus- and minus-strand-contg. larger structures stayed as recognizable entities, whereas the plus-strand-contg. granules coalesced into a juxtanuclear area of membranous ***vesicles*** . An involvement of Golgi-derived membranes in the formation of virus-induced ***vesicles*** and ***RNA*** synthesis early in infection was investigated by IF with 2C- and Golgi-specific antibodies.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 101 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:667703 CAPLUS
DN 130:35617
TI In situ localization of barley yellow dwarf virus-PAV 17-kDa protein and ***nucleic*** ***acids*** in oats
AU Nass, Petra H.; Domier, Leslie L.; Jakstys, Birute P.; D'Arcy, Cleora J.
CS University of Illinois, Department of Crop Sciences, University of Illinois at Urbana-Champaign, Urbana, 61801, USA
SO Phytopathology (1998), 88(10), 1031-1039 CODEN: PHYTAJ; ISSN: 0031-949X
PB American Phytopathological Society
DT Journal
LA English
AB Barley yellow dwarf virus strain PAV (BYDV-PAV) ***RNA*** and the 17-kDa protein were localized in BYDV-PAV-infected oat cells using in situ ***hybridization*** and in situ immunolocalization assays, resp. The in situ ***hybridization*** assay showed labeling of filamentous material in the nucleus, cytoplasm, and virus-induced ***vesicles*** with both sense and antisense ***nucleic*** ***acid*** ***probes*** , suggesting that the filamentous material found in BYDV-PAV-infected cells contains viral ***RNA*** . BYDV-PAV neg.-strand ***RNA*** was ***detected*** before virus particles were obsd., which indicates that ***RNA*** replication is initiated before synthesis of viral coat protein in the cytoplasm. The 17-kDa protein was assocd. with filamentous material in the cytoplasm, nucleus, and virus-induced ***vesicles*** . The labeling densities obsd. using antibodies against the 17-kDa protein were similar in the nucleus and cytoplasm. No labeling of the 17-kDa protein was obsd. in plasmodesmata, but filaments in the nuclear pores occasionally were labeled. Since BYDV-PAV ***RNA*** and 17-kDa protein colocalized within infected cells, it is possible that single-stranded viral ***RNA*** is always assocd. with the 17-kDa protein in vivo. The 17-kDa protein may be required for viral ***nucleic*** ***acid*** filaments to traverse the nuclear membrane or other membrane systems.
RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 102 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:640363 CAPLUS
DN 129:258972
TI Identification of tumor-associated alleles of genes essential for cell viability and growth and the development of neoplasm inhibitors targeted against them

IN Housman, David; Ledley, Fred D.; Stanton, Vincent P., Jr.
PA Variagenics, Inc., USA
SO PCT Int. Appl., 605 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9841648 A2 19980924 WO 1998-US5419 19980319 WO 9841648 A3 19990429 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE CA 2283636 AA 19980924 CA 1998-2283636 19980319 AU 9867643 A1 19981012 AU 1998-67643 19980319 EP 973935 A2 20000126 EP 1998-912974 19980319 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1997-41057P P 19970320 WO 1998-US5419 W 19980319
AB Strategies for the identification and targeting of specific alleles of genes in the treatment of tumors are described. Tumor-assocd. alleles of genes coding for ***proteins*** essential for cell viability or cell growth and that show loss of an alleles in cancer cells due to loss of heterozygosity (LOH) are identified. Inhibitors of the remaining allele, such as antisense nucleic acids or ribozymes, can then be developed. The method can also be used to inhibit the expression of particular alleles of genes for antigens in the control of transplant rejection. Particular categories of appropriate target genes are described, along with specific exemplary genes within those categories and methods of using such target genes. Antisense phosphorothioate oligonucleotides targeting RNA polymerase II and glutamyl/prolyl tRNA synthetase genes were tested for cytotoxicity in vitro. Oligonucleotides with a single base mismatch were significantly less toxic than those without mismatches. A no. of genes essential for proliferation were mapped and shown to be affected by loss-of-heterozygosity in oncogenesis.

L16 ANSWER 103 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:633758 CAPLUS
DN 130:36191
TI Expression of osteopontin in Meckel's cartilage cells during phenotypic transdifferentiation in vitro, as ***detected*** by in situ ***hybridization*** and immunocytochemical analysis
AU Ishizeki, K.; Nomura, Shintaro; Takigawa, Masaharu; Shioji, Hiroya; Nawa, Tokio
CS School of Dentistry, Department of Oral Anatomy, Iwate Medical University, Morioka, 020, Japan
SO Histochemistry and Cell Biology (1998), 110(5), 457-466 CODEN: HCBIFP; ISSN: 0948-6143
PB Springer-Verlag
DT Journal
LA English
AB The localization of osteopontin (OP) was examd. in Meckel's cartilage cells that bipotentially expressed cartilage and bone phenotypes during cellular transformation in vitro. Cultured cells were analyzed by in situ ***hybridization*** , immunostaining followed by light and electron microscopy, electron microscopy, and electron ***probe*** microanal. The combination of ultrastructural anal. and immunoperoxidase staining indicated that OP-synthesizing cells were cells that were autonomously undergoing a change from chondrocytes to bone-forming cells at the top of nodules. Double immunofluorescence staining of 2-wk-old cultures revealed that OP was first synthesized by chondrocytic cells at the top of nodules. After further time in culture, the distribution of OP expanded from the central toward the peripheral regions of the nodules. Electron ***probe*** microanal. revealed that the localization of OP was assocd. with matrixes of calcified cartilage and osteoid nodules that contained calcium and phosphorus. Immunoperoxidase electron microscopy revealed that, in addn. to the intracellular immunoreactivity in chondrocytes and small round cells that were undergoing transformation, matrix foci of calcospherites and matrix ***vesicles*** , in particular, included growing crystals that were immunopos. for OP. An intense signal due to ***mRNA*** for OP in 3-wk-old cultures was ***detected*** in nodule-forming round cells, while fibroblastic cells, spreading in a monolayer over the periphery of nodules, were only weakly labeled. These findings indicate that OP might be expressed sequentially by chondrocytes and by cells that are transdifferentiating further and exhibit an osteocytic phenotype, and moreover, that expression of OP is closely assocd. with calcifying foci in the extracellular matrix.
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 104 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:350492 CAPLUS
DN 129:118729
TI Expression of maize and fungal nitrate reductase genes in arbuscular mycorrhiza
AU Kaldorf, Michael; Schmelzer, Elmon; Bothe, Hermann
CS Botanisches Institut, Universitat zu Koln, Koln, D-50923, Germany
SO Molecular Plant-Microbe Interactions (1998), 11(6), 439-448 CODEN: MPMIEL; ISSN: 0894-0282
PB APS Press
DT Journal
LA English
AB The role of arbuscular mycorrhizal (AM) fungi in assisting their host plant in nitrate assimilation was studied. With polymerase chain reaction technol., part of the gene coding for the nitrate reductase (NR) apoprotein from either the AM fungus Glomus intraradices or from maize was specifically amplified and subsequently cloned and sequenced. Northern (***RNA***) blot anal. with these ***probes*** indicated that the ***mRNA*** level of the maize gene was lower in roots and shoots of mycorrhizal plants than in noncolonized controls, whereas the fungal gene was transcribed in roots of AM plants. The specific NR activity of leaves

was significantly lower in AM-colonized maize than in the controls. Nitrite formation catalyzed by NR was mainly NADPH-dependent in roots of AM-colonized plants but not in those of the controls, which is consistent with the fact that NRs of fungi preferentially utilize NADPH as reductant. The fungal NR ***mRNA*** was ***detected*** in arbuscules but not in ***vesicles*** by in situ ***RNA*** ***hybridization*** expts. This appears to be the first demonstration of differential formation of transcripts of a gene coding for the same function in both symbiotic partners.
RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 105 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:330201 CAPLUS
DN 129:119962
TI Tomato chlorosis virus: a new whitefly-transmitted, phloem-limited, bipartite closterovirus of tomato
AU Wisler, G. C.; Li, R. H.; Liu, H. -Y.; Lowry, D. S.; Duffus, J. E.
CS USDA-ARS Crop Improvement and Protection Research Unit, Salinas, CA, 93905, USA
SO Phytopathology (1998), 88(5), 402-409 CODEN: PHYTAJ; ISSN: 0031-949X
PB American Phytopathological Society
DT Journal
LA English
AB Tomato chlorosis virus (ToCV) is the second whitefly-transmitted, phloem-limited, bipartite closterovirus described infecting tomato. ToCV is distinct from tomato infectious chlorosis virus (TICV), based on lack of serol. and ***nucleic*** ***acid*** cross-reactions and differences in vector specificity. TICV is transmitted only by the greenhouse whitefly (Trialeurodes vaporariorum), whereas ToCV is transmitted by the greenhouse whitefly, the banded-wing whitefly (T. abutilonea), and Bemisia tabaci biotypes A and B (B. argentifolii). Double-stranded (ds) ***RNA*** analyses of ToCV show two prominent dsRNAs of approx. 7,800 and 8,200 bp, with several small dsRNAs. Digoxigenin-11-UTP-labeled riboprobes derived from ***cDNA*** clones representing portions of ***RNAs*** 1 and 2 were used in Northern blot ***hybridizations*** to ***detect*** two large nonhomologous dsRNAs and a subset of smaller dsRNAs. These ***probes*** were used in dot blot ***hybridizations*** to ***detect*** ToCV in infected tomato. Inclusion bodies and cytoplasmic ***vesicles*** were consistently obsd. in phloem tissues of ToCV-infected Nicotiana clevelandii. Computer-assisted sequence anal. showed significant homol. between ToCV clones that ***hybridize*** specifically with ***RNAs*** 1 and 2 and the lettuce infectious yellows virus methyltransferase of ***RNA*** 1 and the HSP70 heat shock protein homolog of ***RNA*** 2, resp. Thus, ToCV is another member of the growing subgroup of bipartite closteroviruses transmitted by whiteflies.
RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 106 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:296815 CAPLUS
DN 129:65160
TI Solvent relaxation of fluorescent labels as a new tool for the ***detection*** of polarity and rigidity changes in membranes
AU Hof, Martin; Hutterer, Rudi
CS J. Heyrovsky Institute of Physical Chemistry, Acad. Sci. CR, Prague, CZ-18223/8, Czech Rep.
SO Czechoslovak Journal of Physics (1998), 48(4), 435-441 CODEN: CZYPAO; ISSN: 0011-4626
PB Institute of Physics, Academy of Sciences of the Czech Republic
DT Journal
LA English
AB Since solvent relaxation (SR) exclusively depends on the phys. properties of the dye environment, SR spectroscopy of defined located labels in amphiphilic assemblies accomplishes the characterization of specific domains. The most accurate way to characterize SR is the detn. of the time-dependent Stokes shift. The time course of the Stokes shift, expressed as a solvent relaxation time, gives information about both the rigidity and polarity of the dye environment. The abs. value of the Stokes shift following the excitation is correlated with the polarity of the ***probed*** region. The validity of this approach for the investigation of phospholipid bilayers is illustrated by listing the parameters influencing the SR kinetics of appropriate membrane labels: membrane curvature, percentage of phosphatidylserine (PS) in small unilamellar ***vesicles*** (SUV), addn. of Ca2+ ions, ***binding*** of vitamin-K dependent ***proteins*** , percentage of diether-lipids in phosphatidylcholine (PC)- ***vesicles*** , and temp.
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 107 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:294112 CAPLUS
DN 129:50902
TI Transport of Long-Chain Native Fatty Acids across Human Erythrocyte Ghost Membranes
AU Kleinfeld, Alan M.; Storms, Scott; Watts, Michael
CS Medical Biology Institute, La Jolla, CA, 92037, USA
SO Biochemistry (1998), 37(22), 8011-8019 CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English

AB Evidence from a no. of labs. suggests that membrane ***proteins*** may meditate the transport of physiol. fatty acids (FA) across cell membranes. However, actual transport of unbound free fatty acids (unbound FFA) from the aq. phase on one side of a cell membrane to the aq. phase on the other side has not been measured previously. In this study, the authors have used the fluorescent ***probe*** of unbound FFA, ADIFAB, to monitor the time course of FA movement from the outer to the inner aq. compartments, and from the lipid membrane to the outer aq. compartment of red cell ghosts. These two measurements, together with measurements of the lipid/aq. partition coeffs., allowed the detn. of the rate consts. for ***binding*** (kon), flip-flop (kff), and dissocn. (koff) for the transport of long-chain natural FA across red cell ghosts. Measurements done using palmitate, oleate, and linoleate at temps. between 20 and 37.degree. revealed that the overall transport times ranged from about 0.5 to more than 10 s, depending upon FA type and temp. Anal. of these time courses yielded kff values between 0.3 and 3.0 s-1, and these values were consistent with those obtained using ghosts contg. pyranine to ***detect*** intracellular acidification by the translocating FA. The measured koff values ranged from about 0.3 to 5 s-1, while the rate of ***binding*** for the ghost concns. used in this study (>50 .mu.M phospholipid) exceed both kff and koff. Thus, long-chain FA transport across red cell ghost membranes is rate-limited by a combination of flip-flop and dissocn. rates. ***Binding*** of FA to ghost membranes was well described by simple, nonsaturable, aq./membrane partition, and that partition appears to be governed by the aq. soly. of the FA. Transport rates did not reveal any evidence of satn. and were not affected by a variety of ***protein*** -specific reagents. These FA ***binding*** and transport characteristics are similar to those obsd. previously for lipid ***vesicles*** , although the rate consts. are generally about 2-3-fold larger for ghosts as compared to the lipid ***vesicles*** . The authors suggest, therefore, that FA transport across red cell ghosts is reasonably well described by transport across the lipid phase of the membrane.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 108 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:223599 CAPLUS
DN 129:14761
TI Hetero-oligomerization-dependent ***binding*** of pig oocyte zona pellucida glycoproteins ZPB and ZPC to boar sperm membrane ***vesicles***
AU Yurewicz, Edward C.; Sacco, Anthony G.; Gupta, Satish K.; Xu, Naxing; Gage, Douglas A.
CS Department of Obstetrics & Gynecology, Wayne State University, Detroit, MI, 48201, USA
SO Journal of Biological Chemistry (1998), 273(13), 7488-7494 CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The zona pellucida surrounding the pig oocyte contains two Mr 55,000 glycoproteins, pZPB and pZPC, which are orthologues of mouse zona ***proteins*** ZP1 and ZP3, resp. We previously reported that isolated boar sperm membrane ***vesicles*** possess high affinity ***binding*** sites for partially purified pZPB, but not pZPC. Interestingly, co-incubation expts. also implicated pZPB-pZPC complexes as potential ligands. We now report that when depleted of a minor pZPC contaminant by size exclusion chromatog., pZPB lacks independent ***binding*** activity. In solid phase ***binding*** assays employing immobilized boar sperm membranes, pZPB failed to compete with biotin-(pZPB+pZPC) ***probe*** , and biotin-labeled pZPB yielded negligible ***binding*** . However, when co-incubated with pZPC prior to the ***binding*** assays, pZPB acted as a potent competitor, and biotin-labeled pZPB exhibited high affinity, saturable ***binding*** . ***Binding*** activity was attributed to pZPB-pZPC heterocomplexes, which were ***detected*** in co-incubation mixts. by size exclusion chromatog. and Western blot anal. In the pig, therefore, sperm membranes possess a zona- ***binding*** ***protein*** with high affinity sites for pZPB-pZPC heterocomplexes, but not free glycoprotein subunits. Consequently, associative interactions between zona mols. can contribute toward both the assembly of the zona matrix and generation of ligands important for sperm-zona interactions.
RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 109 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:197616 CAPLUS
DN 128:281176
TI Hedgehog interacting ***proteins*** of vertebrates and cDNAs encoding them and their uses
IN McMahon, Andrew P.; Chuang, Pao Tien
PA President and Fellows of Harvard College, USA; McMahon, Andrew P.; Chuang, Pao Tien
SO PCT Int. Appl., 123 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9812326 A1 19980326 WO 1997-US16741 19970919 W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG CA 2266429 AA 19980326 CA 1997-2266429 19970919 AU 9744892 A1 19980414 AU 1997-44892 19970919 AU 742972 B2 20020117 EP 935656 A1 19990818 EP 1997-943410 19970919 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2001501468 T2 20010206 JP 1998-514934 19970919 US 6514724 B1 20030204 US 1997-933711 19970919 US 2003143595 A1 20030731 US 2002-288556 20021104

PRAI US 1996-26155P P 19960920 US 1997-933711 A1 19970919 WO 1997-US16741 W 19970919
AB ***Proteins*** that interact with hedgehog ***protein*** "hedgehog interacting ***proteins*** " or "HIPs" that ***bind*** hedgehog with high affinity are described and cDNAS encoding them are cloned. The ***proteins*** are found in human, mouse, chicken and zebrafish. The ***proteins*** exhibit spatially and temporally restricted patterns of distribution indicative of important roles in hedgehog-mediated induction. The ***proteins*** may be of use in the treatment of a no. of diseases (no data).
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 110 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:152898 CAPLUS
DN 128:306640
TI Ontogeny of basolateral membrane sodium-hydrogen exchange (NHE) activity and ***mRNA*** expression of NHE-1 and NHE-4 in rat kidney and jejunum
AU Collins, James F.; Xu, Hua; Kiela, Pawel R.; Zeng, Jiamin; Ghishan, Fayez K.
CS Steele Memorial Children's Research Center, Departments of Pediatrics and Physiology, University of Arizona Health Sciences Center, Tucson, AZ, 85724, USA
SO Biochimica et Biophysica Acta (1998), 1369(2), 247-258 CODEN: BBACAQ; ISSN: 0006-3002
PB Elsevier Science B.V.
DT Journal
LA English
AB Na+/H+ exchange (NHE) activity varies with ontogenic state in rat intestinal basolateral membrane ***vesicles*** (BLMV). The current investigation sought to det. if these observations are due to differential expression of BLM NHE isoforms, NHE-1 and NHE-4. In rat kidney, BLMV sodium uptake levels were similar in 2, 3 and 6 wk rats (13.28.+-.0.68, 14.03.+-.0.84, and 11.71.+-.0.66 nmol Na+/mg protein/30 s, resp.), and lower in adults (5.53.+-.0.24) (n=4; p<0.001 between 2 wk rats and adults, and between 3 wk rats and adults; p<0.01 between 6 wk rats and adults). In rat jejunum, BLMV uptake was highest in adults (13.07.+-.0.86 nmol Na+/mg protein/30 s), and decreased in 6, 3, and 2 wk rats (4.48.+-.0.75, 2.94.+-.0.68, and 1.59.+-.0.58, resp.) (n=4; p<0.001 between all groups and adults). Control immunoblot expts. with NHE-3 antiserum showed that BLMV preps were not contaminated with significant amts. of this brush-border membrane specific protein. Northern blots with isoform-specific ***probes*** showed highest renal NHE-1 ***hybridization*** intensities in 2 and 3 wk rats (11.00.+-.0.25 and 12.07.+-.0.16 phosphorimage units, resp.), and lower intensities in 6 wk and adult animals (4.30.+-.0.95, and 4.40.+-.1.40, resp.) (n=4; p<0.01 between 2 wk animals and 6 wk and adult animals, and between 3 wk animals and 6 wk and adult animals). NHE-1 ***probes*** in the intestine showed no ***hybridization*** intensity differences between groups: 2 wk-7.09.+-.1.10, 3 wk-5.39.+-.0.56, 6 wk-8.24.+-.1.57, and adult-8.99.+-.2.20 (n=3). NHE-4 specific ***probes*** in the kidney showed ***hybridization*** intensity levels of 9.22.+-.0.35 in 2 wk animals, 12.12.+-.1.26 in 3 wk animals, 5.63.+-.0.81 in 6 wk animals, and 3.52.+-.0.57 in adults (n=4; p<0.05 between 2 wk and adults; p<0.01 between 3 wk and 6 wk animals, and between 3 wk and adults). No NHE-4 message was ***detected*** in rat jejunum by Northern blot anal. or by reverse transcriptase-PCR. These results suggest that ontogenic NHE activity at the jejunal BLM is not related to differential expression of NHE-1, while NHE activity at the renal BLM may in part be related to differential ontogenic expression of NHE-1 and NHE-4.
RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 111 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:740248 CAPLUS
DN 128:19388
TI sequence and therapeutic applications of inhibition of human synaptogyrin gene expression
IN Hawkins, Phillip R.; Stuart, Susan G.; Murry, Lynn E.
PA Incyte Pharmaceuticals, Inc., USA; Hawkins, Phillip R.; Stuart, Susan G.; Murry, Lynn E.
SO PCT Int. Appl., 73 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9741143 A1 19971106 WO 1997-US7378 19970430 W: AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, IL, JP, KR, MX, NO, NZ, RU, SE, SG, US, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG US 5854413 A 19981229 US 1996-700637 19960430 AU 9728231 A1 19971119 AU 1997-28231 19970430
PRAI US 1996-700637 A2 19960430 WO 1997-US7378 W 19970430
AB A gene snpg initially isolated from a colon ***cDNA*** library which identifies and encodes a novel human synaptogyrin homolog SNPG is presented. Genetically engineered expression vectors and host cells able to express this human synaptogyrin are described. The use of SNPG in the membrane of a ***vesicle*** contg. a chem. or biol. therapeutic compn. for the treatment of disease, and for the therapeutic use of antisense mols., antibodies, antagonists or inhibitors in the treatment of conditions or diseases assocd. with the abnormal or excess expression of SNPG. These diseases may include Crohn's disease, rheumatoid arthritis, asthma, and cancers or tumors of the colon, lung, and brain. Diagnostic assays utilizing diagnostic compns. comprising the polynucleotide, fragments or the complement which ***hybridize*** with the genomic sequence or the transcript of snpg, or anti-SNPG antibodies which specifically ***bind*** to the ***polypeptide*** SNPG.

L16 ANSWER 112 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1997:737970 CAPLUS
DN 128:32899
TI Demonstration of system y+L activity on the basal plasma membrane surface of rat placenta and developmentally regulated expression of 4F2HC ***mRNA***
AU Novak, D. A.; Matthews, J. C.; Beveridge, M. J.; Yao, S. Y. M.; Young, J.; Kilberg, M. S.
CS Department of Pediatrics, University of Florida College of Medicine, FL, USA
SO Placenta (1997), 18(8), 643-648 CODEN: PLACDF; ISSN: 0143-4004
PB Saunders
DT Journal
LA English
AB Na+-independent cationic amino acid transport in the rat placenta occurs by leucine-sensitive and leucine-insensitive pathways. The ontogeny of these transport mechanisms within the rat placenta has been described recently. To assign the leucine-inhibitable portion of uptake definitively the uptake of [3H]arginine was studied in the presence of both BCH (to inhibit system B0,+) and varied concns. of leucine. Uptake of arginine into basal-enriched membrane ***vesicles*** derived from rat placenta was, in the presence of sodium, inhibited by micromolar concns. of leucine, consistent with assignment of this activity to system y+L. In contrast, the majority of arginine uptake into apical-enriched membrane ***vesicles*** was leucine insensitive. ***MRNA*** derived from rat placenta at days 14, 16, 18 and 20 of gestation was ***hybridized*** with full-length rat ***cDNA*** ***probes*** against NBAT and 4F2HC (thought to encode proteins assocd. with system b0,+ and y+L activities, resp.). No NBAT ***mRNA*** was ***detected*** , whereas 4F2HC ***mRNA*** was present at all gestational stages, increasing 12-fold over the last third of gestation. It is concluded that system y+L is present in the basal plasma membrane of the rat placenta syncytium and is subject to developmental regulation by a mechanism that alters the steady content of 4F2HC ***mRNA*** .
RE.CNT 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 113 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:734716 CAPLUS
DN 127:328752
TI A leucine zipper motif in the ectodomain of Sendai virus fusion ***protein*** assembles in solution and in membranes and specifically ***binds*** biologically active ***peptides*** and the virus
AU Ghosh, Jimut Kanti; Ovadia, Michael; Shai, Yechiel
CS Department of Membrane Research and Biophysics, Weizmann Institute of Science, Rehovot, 76100, Israel
SO Biochemistry (1997), 36(49), 15451-15462 CODEN: BICHAW; ISSN: 0006-2960
PB American Chemical Society
DT Journal
LA English
AB The authors have ***detected*** a leucine zipper-like motif in the ectodomain of the Sendai virus fusion ***protein*** (aa 269-307) which is extremely conserved in the family of Sendai viruses. To find a possible role for this motif, the authors synthesized SV-269, a 39 amino acid ***peptide*** corresponding to this domain, and a mutant ***peptide*** , MuSV-269, with an amino acid pair interchanged their positions. The ***peptides*** were labeled with fluorescent ***probes*** at their N-terminal amino acid and functionally and structurally characterized. The data show that SV-269, but not MuSV-269, specifically ***binds*** Sendai virus. Expectedly, SV-269 is more active than the mutant MuSV-269 in inhibiting Sendai virus-mediated hemolysis. Fluorescence studies reveal that SV-269 assembles in aq. soln., ***binds*** to zwitterionic PC and neg.-charged PS/PC ***vesicles*** , and assembles therein. Although MuSV-269 similarly ***binds*** to both types of ***vesicles*** , it only slightly assembles in soln. and not at all in membranes. Moreover, SV-269, but not MuSV-269, coassembles with the biol.-active heptad repeats SV-150 and SV-473 (Rapaport et al., 1995) in soln. as revealed by fluorescence and CD (CD) spectroscopy, and with SV-150 within neg.-charged PS/PC and zwitterionic PC ***vesicles*** . Despite these differences, both SV-269 and MuSV-269 adopt similar secondary structures in 40% TFE and 1% SDS as revealed by CD spectroscopy, and disrupt the packing of the lipid bilayers to the same extent, as shown by the dissipation of diffusion potential. The role of this leucine zipper motif is discussed in terms of the assembly of the Sendai virus fusion ***protein*** in soln. and within membranes. Since most of the heptadic leucines are also conserved in the corresponding domains of other paramyxoviruses such as rinderpest, measles, SV5, and parainfluenza, it may indicate a similar role of this domain in these viruses as well.
RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 114 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:672988 CAPLUS
DN 127:327615
TI Transmembrane .beta.-barrel of staphylococcal .alpha.-toxin forms in sensitive but not in resistant cells
AU Valeva, Angela; Walev, Iwan; Pinkernell, Matthias; Walker, Barbara; Bayley, Hagan; Palmer, Michael; Bhakdi, Sucharit
CS Institute Medical Microbiology Hygiene, University Mainz, Mainz, D-55101, Germany
SO Proceedings of the National Academy of Sciences of the United States of America (1997), 94(21), 11607-11611 CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English

AB Staphylococcal .alpha.-toxin is a 293-residue, single-chain ***polypeptide*** that spontaneously assembles into a heptameric pore in target cell membranes. To identify the pore-forming domain, substitution mutants have been produced in which single cysteine residues were introduced throughout the toxin mol. By attaching the environmentally sensitive dye acrylodan to the sulfhydryl groups, the environment of individual amino acid side chains could be ***probed*** . In ***liposomes*** , a single 23-amino acid sequence (residues 118-140) was found to move from a polar to a nonpolar environment, indicating that this sequence forms the walls of the pore. However, periodicity in side chain environmental polarity could not be ***detected*** in the ***liposomal*** system. In the present study, the fluorometric analyses were extended to physiol. target cells. With susceptible cells such as rabbit erythrocytes and human lymphocytes, the 23 central amino acids 118-140 were again found to insert into the membrane; in contrast to the previous study with ***liposomes*** , the expected periodicity was now ***detected*** . Thus, every other residue in the sequence 126-140 entered a nonpolar environment in a striking display of an amphipathic transmembrane .beta.-barrel. In contrast, human granulocytes were found to ***bind*** .alpha.-toxin to a similar extent as lymphocytes, but the heptamers forming on these cells failed to insert their pore-forming domain into the membrane. As a consequence, nonfunctional heptamers assembled and the cells remained viable. The data resolve the mol. organization of a pore-forming toxin domain in living cells and reveal that resistant cells can prevent insertion of the functional domain into the bilayer.
RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 115 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:574406 CAPLUS
DN 127:187871
TI Functionalized hydrophilic acridinium esters
IN Law, Say-Jong; Sotiriou-Leventis, Chariklia; Natrajan, Anand; Jiang, Qingping; Connolly, Peter B.; Kilroy, John P.; McCudden, Constance R.; Tirrell, Stephen M.
PA Chiron Diagnostics Corp., USA
SO U.S., 28 pp., Cont.-in-part of U.S. 5,449,556. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 3 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI US 5656426 A 19970812 US 1994-225165 19940408 JP 09025422 A2 19970128 JP 1996-179488 19890731 US 5227489 A 19930713 US 1992-826186 19920122 US 5449556 A 19950912 US 1993-32231 19930317 US 5595875 A 19970121 US 1994-325845 19941019 CA 2186463 AA 19951019 CA 1995-2186463 19950406 WO 9527702 A1 19951019 WO 1995-IB244 19950406 W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG AU 9520816 A1 19951030 AU 1995-20816 19950406 AU 703436 B2 19990325 EP 754178 A1 19970122 EP 1995-913298 19950406 EP 754178 B1 20030115 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI BR 9507307 A 19970902 BR 1995-7307 19950406 JP 10503169 T2 19980324 JP 1995-526216 19950406 EP 982298 A1 20000301 EP 1999-203889 19950406 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI AT 231130 E 20030215 AT 1995-913298 19950406 ES 2188654 T3 20030701 ES 1995-913298 19950406 US 5656500 A 19970812 US 1995-440427 19950512
PRAI US 1988-226639 B1 19880801 US 1992-826186 A3 19920122 US 1993-32231 A2 19930317 JP 1989-199178 A3 19890731 US 1993-32321 A3 19930317 US 1994-225165 A 19940408 US 1994-325845 A1 19941019 EP 1995-913298 A3 19950406 WO 1995-IB244 W 19950406
OS MARPAT 127:187871
AB Novel acridinium esters are disclosed that are useful, either alone or when incorporated into ***liposomes*** , as chemiluminescent agents in ***binding*** assays (e.g., immunoassays and gene ***probe*** assays) with improved sensitivity. In addn., the synthesis of these esters and their use in assays for ***detecting*** an analyte are described. In particular, assays for testosterone and the Rubella virus are disclosed.

L16 ANSWER 116 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:569564 CAPLUS
DN 127:260584
TI Localization of BRCA1 gene expression in adult cynomolgus monkey tissues
AU Durocher, Francine; Simard, Jacques; Ouellette, Johanne; Richard, Virgile; Labrie, Fernand; Pelletier, Georges
CS Lab. of Familial Cancers and Medical Research Council Group in Molecular Endocrinology, Laval University, QC, G1V 4G2, Can.
SO Journal of Histochemistry and Cytochemistry (1997), 45(9), 1173-1188 CODEN: JHCYAS; ISSN: 0022-1554
PB Histochemical Society, Inc.
DT Journal
LA English
AB The breast and ovarian cancer susceptibility gene BRCA1 encodes a phosphoprotein of 1863 amino acids contg. a highly conserved N-terminal RING finger domain and a C-terminal acidic region typical of several transcription factors. BRCA1 acts as a tumor suppressor that may inhibit the proliferation of breast and ovarian cancer cells. To gain knowledge and to further understand the biol. function of BRCA1, we examd. its localization and expression in various tissues from 20-yr-old male and female cynomolgus monkeys (Macaca fascicularis) by in situ ***hybridization*** using a 35S-labeled human BRCA1 ***DNA*** ***probe*** fragment derived from exon 11 in mammary glands, BRCA1 expression was primarily located in the duct and acinar epithelial cells. In the ovary,

strong BRCA1 expression was ***detected*** in granulosa cells in maturing follicles and in luteal cells of the corpus luteum, as well as in the epithelial cells overlying the tunica albuginea. Specific signal was also obsd. in epithelial cells of the oviduct, endometrium, cervix, and vagina. Moreover, BRCA1 was strongly expressed in the germinal epithelium of the seminiferous tubules as well as over interstitial cells of the testis, in the epithelium of the epididymis,epididymis, and in epithelial cells bordering the glandular lumen of the seminal ***vesicles*** . Signal was also ***detected*** in both the anterior and posterior lobes of the pituitary. In the adrenal glands, the signal was greater in the zona glomerulosa compared to the two other cortical zones, whereas the medullary cells were weakly labeled. In the stomach, and in small and large intestine, epithelial cells of the crypts usually exhibited stronger pos. reaction than that obsd. over surface epithelial lining cells. BRCA1 expression was also found in diverse types of epithelial cells of the thyroid, pancreas, salivary glands, trachea, urinary bladder, and kidneys. In addn. to demonstrating widespread tissue- and cell-specific expression of the BRCA1 gene in primate tissues, primarily in the epithelia, we obsd. a weaker but specific signal in various other cell types, suggesting a generalized biol. function of BRCA1.
RE.CNT 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 117 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:540592 CAPLUS
DN 127:231648
TI Tromp1, a putative rare outer membrane ***protein*** , is anchored by an uncleaved signal sequence to the Treponema pallidum cytoplasmic membrane
AU Akins, Darrin R.; Robinson, Esther; Shevchenko, Dmitriy; Elkins, Christopher; Cox, David L.; Radolf, Justin D.
CS Dep. Internal Med., Univ. Texas Southwestern Med. Cent., Dallas, TX, 75235, USA
SO Journal of Bacteriology (1997), 179(16), 5076-5086 CODEN: JOBAAY; ISSN: 0021-9193
PB American Society for Microbiology
DT Journal
LA English
AB T. palladium rare outer membrane ***protein*** 1 (Tromp1) has extensive sequence homol. with substrate- ***binding*** ***proteins*** of ATP- ***binding*** cassette transporters. Because such ***proteins*** typically are periplasmic or cytoplasmic membrane assocd., expts. were conducted to clarify Tromp1's physicochem. properties and cellular location in T. pallidum. Comparison of the SDS-PAGE mobilities of (i) native Tromp1 and Tromp1 synthesized by coupled in vitro transcription-translation and (ii) native Tromp1 and recombinant Tromp1 lacking the N-terminal signal sequence revealed that the native ***protein*** is not processed. Other studies demonstrated that recombinant Tromp1 lacks 3 basic porin-like properties: (i) the ability to form aq. channels in ***liposomes*** which permit the influx of small hydrophilic solutes, (ii) an extensive .beta.-sheet secondary structure, and (iii) amphiphilicity. Subsurface localization of native Tromp1 was demonstrated by immunofluorescence anal. of treponemes encapsulated in gel microdroplets, while opsonization assays failed to ***detect*** surface-exposed Tromp1. Incubation of motile treponemes with 3-(trifluoromethyl)-3-(m-[125I]iodophenyl)-diazarine, a photoactivatable, lipophilic ***probe*** , also did not result in the ***detection*** of Tromp1 within the outer membranes of intact treponemes but, instead, resulted in the labeling of a basic 30.5-kDa presumptive outer membrane ***protein*** . Anal. of fractionated treponemes revealed that native Tromp1 is assocd. predominantly with cell cylinders. These findings comprise a body of evidence that Tromp1 actually is anchored by an uncleaved signal sequence to the periplasmic face of the T. pallidum cytoplasmic membrane, where it likely subserves a transport-related function.

L16 ANSWER 118 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:445166 CAPLUS
DN 127:104591
TI Human growth hormone induces system B transport in short bowel syndrome
AU Iannoli, P.; Miller, J. H.; Ryan, C. K.; Gu, L. H.; Ziegler, T. R.; Sax, H. C.
CS Department of Surgery, University of Rochester Medical Center, Rochester, NY, 14642, USA
SO Journal of Surgical Research (1997), 69(1), 150-158 CODEN: JSGRA2; ISSN: 0022-4804
PB Academic
DT Journal
LA English
AB After massive enterectomy, remnant intestine undergoes compensatory adaptation. A combination of human growth hormone (hGH) and a glutamine-enriched modified diet induces further adaptation in patients with short bowel syndrome (SBS) on long-term total parenteral nutrition. The specific actions of each component, however, are not well-defined. New Zealand White rabbits were randomized to control, sham operation, or SBS (70% mid-jejunoileal resection) groups and treated with either hGH or saline. Sodium-dependent uptake of glucose, glutamine, alanine, leucine, and arginine into brush border membrane ***vesicles*** was quantitated. Serum insulin-like growth factor-I (IGF-I) levels were detd. by immunoradiometric assay. Mucosal ***mRNA*** expression of IGF-I and IGF ***binding*** ***protein*** 4 (IGFBP-4) was evaluated by Northern blot anal. using rat ***cDNA*** ***probes*** . Glutamine and leucine transports were 33 and 39% greater, resp., in the hGH-treated vs. saline-treated SBS group, supporting induction of system B amino acid transport. This upregulation was due, in part, to an 88% increase in glutamine carrier capacity (Vmax) with no change in carrier affinity (Km). Both hGH treatment and SBS increased serum IGF-I levels without direct correlation with increased nutrient transport. IGFBP-4 ***mRNA*** expression in small bowel mucosa of saline-treated SBS animals was significantly greater than saline-treated unoperated control values. Mucosal IGFBP-4 ***mRNA*** was not significantly altered from control in the other study groups. IGF-I ***mRNA*** expression was not ***detected*** in mucosa, but weak ***hybridization*** was noted in rabbit liver. Human growth hormone accelerates early adaptation in SBS by upregulation of system B carrier capacity. Serum IGF-I levels and mucosal IGF-I and IGFBP-4 ***mRNA*** expression did not

directly correlate with this enhanced nutrient transport, suggesting that hGH might exert its adaptive effects by mechanisms that are independent from the IGF system in this model.
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 119 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:444783 CAPLUS
DN 127:160016
TI Ultrastructural co-localization of calmodulin and B-50/growth-associated ***protein*** -43 at the plasma membrane of proximal unmyelinated axon shafts studied in the model of the regenerating rat sciatic nerve
AU Verkade, P.; Schrama, L. H.; Verkleij, A. J.; Gispen, W.-H.; Oestreicher, A. B.
CS Department of Medical Pharmacology, Rudolf Magnus Institute for Neurosciences, University of Utrecht, Utrecht, 3584 CG, Neth.
SO Neuroscience (Oxford) (1997), 79(4), 1207-1218 CODEN: NRSCDN; ISSN: 0306-4522
PB Elsevier
DT Journal
LA English
AB Calmodulin and de-phosphorylated B-50/growth-assocd. ***protein*** -43 (GAP-43) have been shown to ***bind*** in vitro in a mol. complex, but evidence for an in situ assocn. in the nervous system does not exist. Previously, it has been reported that, in the model of the regenerating rat sciatic nerve, the B-50/GAP-43 immunoreactivity is increased and concd. at the axolemma of unmyelinated axons located proximal to the site of injury and axon outgrowth. To explore a putative function of B-50/GAP-43, namely, the capacity of ***binding*** calmodulin to the plasma membrane, the authors examd. the ultrastructural distribution of calmodulin in the proximal unmyelinated axon shafts of this model, using double immunolabeling and ***detection*** by fluorescent or gold ***probes*** conjugated to second antibodies. Immunofluorescence showed that seven days post-sciatic nerve crush the calmodulin immunoreactivity, similar to B-50/GAP-43 immunoreactivity, was intense in unmyelinated axon shafts located proximal to the site of injury of the regenerating nerve. Ultrastructurally, calmodulin was located at the axolemma of these regenerating unmyelinated axon shafts and inside the axoplasm, where it was assocd. with ***vesicles*** and microtubules. The plasma membrane labeling was higher than the axoplasmic labeling. Over 60% of the plasma membrane-assocd. calmodulin co-localized with B-50/GAP-43 in a non-random distribution. Since normally calmodulin is largely present in the cytoplasm, these data suggest that calmodulin has been concd. at the plasma membrane of unmyelinated axons, most probably by B-50/GAP-43. If the concg. effect is due to B-50/GAP-43, then there is a possibility that these ***proteins*** may be present as a mol. complex in situ. The physiol. significance could be that this assocn. regulates the local availability of both B-50/GAP-43 and calmodulin for other interactions.

L16 ANSWER 120 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:282527 CAPLUS
DN 127:2942
TI Whole cell ***hybridization*** as a tool to study Frankia populations in root nodules
AU Hahn, Dittmar; Zepp, Kornelia; Zeyer, Josef
CS Soil Biology, Fed. Inst. Technology, Inst Terrestrial Ecology, Schlieren, CH-8952, Switz.
SO Physiologia Plantarum (1997), 99(4), 696-706 CODEN: PHPLAI; ISSN: 0031-9317
PB Munksgaard
DT Journal
LA English
AB Mol. methods based on ***DNA*** or rRNA ***hybridization*** are powerful tools in microbial ecol. for the specific ***detection*** and enumeration of bacteria unbiased by the limitations of culturability. A promising alternative to the anal. of Frankia populations in root nodules by methods based on rRNA extn. or on ***DNA*** extn. followed by the polymerase chain reaction(PCR) is the whole cell ***hybridization*** technique. This technique includes the microscopic ***detection*** of labeled ***probes*** ***hybridized*** to specific target sequences on marker mols. such as rRNA in fixed microbial cells. The anal. of uncultured Frankia populations in root nodules can reliably be performed on a subgroup level when digoxigenin-labeled oligonucleotide ***probes*** or in vitro transcripts directed against actinomycete-specific insertion on the 23S rRNA are used. Digoxigenin-labeled ***probes*** are more suitable for in situ ***detection*** of Frankia than fluorescent ***probes*** since the sensitivity is higher and problems arising from the autofluorescence of cells and plant material are avoided. All these strategies, however, require pretreatments to increase the permeability of ***vesicles*** , hyphae and spores.
RE.CNT 108 THERE ARE 108 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 121 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:282372 CAPLUS
DN 127:2993
TI Cloning of a full-length symbiotic hemoglobin ***cDNA*** and in situ localization of the corresponding ***mRNA*** in Casuarina glauca root nodule
AU Gherbi, Hassen; Duhoux, Emile; Franche, Claudine; Pawlowski, Katharina; Nassar, Atef; Berry, Alison M.; Bogusz, Didier
CS ORSTOM-GeneTrop, Montpellier, F-34032, Fr.
SO Physiologia Plantarum (1997), 99(4), 608-616 CODEN: PHPLAI; ISSN: 0031-9317
PB Munksgaard
DT Journal
LA English

AB We have characterized a full-length ***cDNA*** (hb-Cg1F) that represents symbiotic ***mRNA*** Hb from Casuarina glauca root nodules. In situ ***hybridization*** was used to examine the correlation between hb-Cg1F ***mRNA*** and the state of the Frankia infection process. The efficiency of in situ ***hybridization*** using DIG-labeled vs [35S]-labeled ***probes*** was compared. The expression of hb-Cg1F gene is induced in young infected host cells prior to the ***detection*** of Frankia nifH ***mRNA*** . Since Frankia does not form ***vesicles*** in C. glauca nodules, it is proposed that Hb is necessary to reduce the O2 concn. in the cytoplasm of the host cells before the nif genes are expressed.
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 122 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:245306 CAPLUS
DN 126:327602
TI Permeabilization of mammalian cells to ***proteins*** : poliovirus 2Apro as a ***probe*** to analyze entry of ***proteins*** into cells
AU Novoa, Isabel; Benavente, Javier; Cotten, Matt; Carrasco, Luis
CS Centro Biologia Molecular, Universidad Autonoma Madrid, Madrid, 28049, Spain
SO Experimental Cell Research (1997), 232(1), 186-190 CODEN: ECREAL; ISSN: 0014-4827
PB Academic
DT Journal
LA English
AB Two hybrid ***protein*** mols. contg. the poliovirus protease 2A (MBP-2Apro) (maltose- ***binding*** ***protein*** -2Apro and MBP-Pseudomonas exotoxin A-2Apro) were constructed and purified. Both hybrid ***proteins*** efficiently cleave the translation initiation factor eIF-4G when they are co-internalized into cells with adenovirus particles. Almost no intact eIF-4G can be ***detected*** in cells incubated with these ***proteins*** following this method. Reovirus infectious subviral particles also promote the delivery of MBP-2Apro into cells, although less efficiently than adenovirus particles. None of the other methods employed to permeabilize cells to MBP-2Apro achieves the degree of eIF-4G cleavage obsd. with adenovirus particles. By comparison about 30% of cells electroporated with MBP-2Apro still contain intact eIF-4G. More drastic electroporation conditions lead to a significant decrease of cell survival. Osmotic lysis of pinocytic ***vesicles*** resulted in 30% of the eIF-4G being cleaved in cells treated in suspension. Delivery of MBP-2Apro by pH-sensitive ***liposomes*** leads to poor hydrolysis of eIF-4G. Taken together our results indicate that permeabilization of cells with adenovirus particles is the most efficient method for introducing MBP-2Apro into cells.
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 123 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:239602 CAPLUS
DN 126:247268
TI Identification of vesicular acetylcholine transporter ***mRNA*** in selected brain and peripheral tissues by RT-PCR
AU Prendergast, Mark A.; Gattu, Mahanandeeshwar; Zhang, Lu; Buccafusco, Chris J.; Buccafusco, Jerry J.
CS Department of Pharmacology and Toxicology, Alzheimers Research Center, Medical College of Georgia, Augusta, GA, 30912-2300, USA
SO Alzheimer's Research (1996), 2(6), 211-214 CODEN: ALREFB; ISSN: 1356-918X
PB Rapid Science Publishers
DT Journal
LA English
AB The vesicular acetylcholine transporter (VAChT) is a proton antiporter responsible for the accumulation of acetylcholine (ACh) in cholinergic neuron secretory ***vesicles*** . The ***mRNA*** encoding the VAChT was previously shown by in situ ***hybridization*** to exhibit a brain distribution similar to that of other cholinergic neuronal markers, thorough none were ***detected*** in some regions for which the existence of ACh soma has been questioned. In the presence study, reverse-transcription polymerase chain reaction (RT-PCR) was employed to amplify a 440-bp fragment of rat VAChT ***mRNA*** in several brain and ganglionic regions. VAChT ***mRNA*** was ***detected*** in each brain region examd., including the striatum, frontal cortex, hypothalamus, cerebellar cortex, and medulla. Further, this ***mRNA*** species was ***detected*** in the hippocampus, a region which had preciously failed to ***hybridize*** in situ ***probes*** for the VAChT and other cholinergic ***mRNAs*** . VAChT ***mRNA*** was also ***detected*** in tissues assocd. with otic ganglion, celiac and superior mesenteric ganglion, and cardiac ganglion. These data indicate that VAChT ***mRNA*** is a marker for cell bodies exhibiting the cholinergic phenotype and that such cells are localized in many regions in which their presence has been difficult to confirm.

L16 ANSWER 124 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:220655 CAPLUS
DN 126:208952
TI Prohormone convertase 7: a new prohormone convertase and its possible role in gp160 envelope glycoprotein processing
IN Seidah, Nabil G.; Day, Robert; Chretien, Michel
PA Institut De Recherches Cliniques De Montreal, Can.; Seidah, Nabil G.; Day, Robert; Chretien, Michel
SO PCT Int. Appl., 52 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------

PI WO 9705256 A2 19970213 WO 1996-CA520 19960802 WO 9705256 A3 19970313 W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM US 5840529 A 19981124 US 1995-545562 19951019 AU 9666089 A1 19970226 AU 1996-66089 19960802 EP 842280 A2 19980520 EP 1996-925622 19960802 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2000502242 T2 20000229 JP 1997-507056 19960802
PRAI US 1995-510347 A 19950802 US 1995-517015 A 19950818 US 1995-545562 A 19951019 WO 1996-CA520 W 19960802
AB A seventh member of the subtilisin-kexin family isolated from rat, which has been named rPC7, is purified and characterized. The rat spleen ***cDNA*** has been totally sequenced. A shorter ***DNA*** sequence has been obtained for human, which corresponds to a portion of the catalytic region of a human pro-hormone convertase corresponding to the rat pro-hormone convertase. PC7 clearly distinguishes from the other mammalian members of the subtilisin-kexin family. Its tissue distribution is ubiquitous, but its presence is particularly remarkable in lymphoid tissues. It is present in LoVo cells that are able to cleave the HIV gp160 protein into active gp120 and gp41 proteins and that are deficient in other effective pro-hormone convertases known up to date. It is proposed that PC7 is a good candidate as a maturation enzyme responsible for the conversion of HIV gp 160 protein in target CD+4 cells. Therefore, silencing the expression of PC7 would lead to the inhibition of the activation of gp 160.

L16 ANSWER 125 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:172490 CAPLUS
DN 126:167490
TI Human homolog of the mouse rab18 gene
IN Kennedy, Neil F.; Guegler, Karl J.; Seilhamer, Jeffrey J.
PA Incyte Pharmaceuticals, Inc., USA
SO PCT Int. Appl., 35 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9700955 A1 19970109 WO 1996-US10699 19960621 W: AT, AU, BR, CA, CH, CN, DE, DK, ES, FI, GB, IL, JP, KR, MX, NO, NZ, RU, SE, SG, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG CA 2224247 AA 19970109 CA 1996-2224247 19960621 AU 9663375 A1 19970122 AU 1996-63375 19960621 EP 833908 A1 19980408 EP 1996-922532 19960621 R: BE, DE, ES, FR, GB, IT, NL JP 2001517066 T2 20011002 JP 1997-503967 19960621
PRAI US 1995-377P P 19950621 US 1995-569062 A 19951206 WO 1996-US10699 W 19960621
AB Nucleotide and amino acid sequences are provided that identify and encode a human homolog of mouse RAB18 (HRAB18) expressed in human pituitary. HRAB18 is a member of the RAB subfamily of monomeric G ***proteins*** and may be involved in the regulation of secretory ***vesicle*** recycling. The 1148-bp ***cDNA*** sequence contains an open reading frame encoding 206 amino acids. The present invention also provides for antisense mols. to the nucleotide sequences which encode HRAB18, ***hybridization*** ***probes*** or oligonucleotides for the ***detection*** of HRAB18-encoding nucleotide sequences, and a diagnostic test based on HRAB18-encoding ***nucleic*** ***acid*** mols. Further, genetically engineered host cells for the expression of HRAB18, biol. active HRAB18, antibodies capable for ***binding*** specifically to HRAB18, and treatment methods comprising administration of compds. capable of ***binding*** HRAB18 are provided.

L16 ANSWER 126 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:134382 CAPLUS
DN 126:326172
TI Evaluation of a 23S rRNA insertion as target for the analysis of uncultured Frankia populations in root nodules of alders by whole cell ***hybridization***
AU Zepp, Kornelia; Hahn, Dittmar; Zeyer, Josef
CS Institute Terrestrial Ecology, Swiss Federal Institute Technology, Schlieren, CH-8952, Switz.
SO Systematic and Applied Microbiology (1997), 20(1), 124-132 CODEN: SAMIDF; ISSN: 0723-2020
PB Fischer
DT Journal
LA English
AB An actinomyces-specific insertion in domain II of the 23S rRNA was used as target for anal. of uncultured Frankia populations in nodule homogenates of alders by whole cell ***hybridization*** . Fluorescent, Cy3-labeled oligonucleotide ***probes*** enabled ***detection*** of filaments and ***vesicles*** without permeabilization whereas ***detection*** of spores required a previous permeabilization with lysozyme. The signal intensity obtained on spores, however, remained quite low and their ***detection*** was not ia populations in nodule homogenates of different alders (Alnus glutinosa, A. incana, A. viridis and A. nepalensis) could be performed on subgroup-level with both oligonucleotide as well as in vitro transcript ***probes*** . The anal. revealed the presence of only 1 Frankia population in every nodule homogenate. Filaments and ***vesicles*** in nodules of the spore (-) type as well as filaments, ***vesicles*** , and spores in nodules of the spore (+) type always belonged to the same group. Populations in nodules of the spore (-) type were usually identified as Frankia population belonging to group IV of the Alnus host infection group, with the exception of the Frankia population in nodules of A. nepalensis which belonged to group IIIa. Nodules of the spore (+) type contained Frankia populations either belonging to group IIIa or to group IV.

L16 ANSWER 127 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:81690 CAPLUS
DN 126:155141
TI Conformational changes in plant Ins(1,4,5)P3 receptor on interaction with different myo-inositol trisphosphates and its effect on Ca2+ release from microsomal fraction and ***liposomes***
AU Dasgupta, Shashiprabha; Dasgupta, Dipak; Chatterjee, Aruna; Biswas, Susweta; Biswas, Birendra B.
CS Dep. Biophys., Mol. Biol. Genetics, Univ. Calcutta, Calcutta, 700 009, India
SO Biochemical Journal (1997), 321(2), 355-360 CODEN: BIJOAK; ISSN: 0264-6021
PB Portland Press
DT Journal
LA English
AB The interaction of the only reported plant inositol trisphosphate receptor with different myo-inositol trisphosphates (InsP3 species), namely Ins(1,4,5)P3, Ins(1,3,4)P3, Ins(1,5,6)P3 and Ins(2,4,5)P3, were studied to assess the extent of Ca2+ mobilization from microsomes/vacuoles as well as ***liposomes*** in vitro. Ins(1,4,5)P3 and Ins(2,4,5)P3 ***bind*** with the receptor with comparable affinities, as evidenced from their dissocn. consts. (Kd approx. 100 nM at 5.degree.C), whereas the interaction between Ins(1,3,4)P3/Ins(1,5,6)P3 and the receptor was not ***detected*** even with these ligands at 5 .mu.M. Ins(1,3,4)P3/Ins(1,5,6)P3 isomers also do not elicit Ca2+ release from ***liposomes*** or microsomes/vacuoles. The ability of any InsP3 to ***bind*** the receptor for Ins(1,4,5)P3 is a prime requirement for Ca2+ release. However, the comparison of ***binding*** affinities at a single temp. does not help to correlate it directly with the extent of Ca2+ release from the intracellular stores, because the concn. of Ca2+ released by Ins(1,4,5)P3 as estd. over a period of 20 s is 3500.+-.200 nM/mg of ***protein*** and is about 4-fold higher than that by Ins(2,4,5)P3 under identical conditions. To understand the role of the receptor conformation in Ca2+ release by different isomers, we have ***probed*** the conformational change of the receptor when the different isomers ***bind*** to it. Accessibility of the tryptophan residues in the free and Ins(1,4,5)P3/Ins(2,4,5)P3-bound receptor was monitored by a neutral fluorescence quencher, acrylamide. The resulting Stern-Volmer-type quenching plots of the internal fluorescence indicate a change in the conformation of the receptor on ***binding*** to Ins(1,4,5)P3 and Ins(2,4,5)P3. It is also ***detected*** when far-UV CD spectra (205-250 nm) of the free and ligand [Ins(1,4,5)P3/Ins(2,4,5)P3]- bound receptor are compared. The results from CD spectroscopic studies further indicate that the conformational changes induced by the two isomers are different in nature. When thermodn. parameters, such as enthalpy (.DELTA.H), entropy (.DELTA.S) and free energy (.DELTA.G), for the formation of the two InsP3-receptor complexes are compared, a major difference in the extent of changes in enthalpy and entropy is noted. All these findings suggest that it is the overall interaction leading to the requisite conformational change in the receptor that dets. the potency of the InsP3 isomers in their abilities of Ca2+ mobilization from the intracellular stores or reconstituted ***liposomes*** .
RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 128 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:48883 CAPLUS
DN 126:57094
TI Micelle protection assay
IN Becker, Michael McClellan
PA Gen-Probe Incorporated, USA
SO Eur. Pat. Appl., 57 pp. CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI EP 747701 A1 19961211 EP 1996-304228 19960606 EP 747701 B1 20011205 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE US 5879885 A 19990309 US 1995-475334 19950607 CA 2223047 AA 19961219 CA 1996-2223047 19960514 WO 9641178 A1 19961219 WO 1996-US6919 19960514 W: AU, CA, JP, KR AU 9657935 A1 19961230 AU 1996-57935 19960514 AU 707818 B2 19990722 JP 11506924 T2 19990622 JP 1996-500570 19960514 AT 210293 E 20011215 AT 1996-304228 19960606 ES 2169211 T3 20020701 ES 1996-304228 19960606 US 6059561 A 20000509 US 1998-94139 19980609
PRAI US 1995-475334 A 19950607 US 1995-484320 A 19950607 WO 1996-US6919 W 19960514
AB The present invention provides methods and compns. for selectively ***detecting*** analytes in a homogeneous assay, a heterogeneous assay, or a mixt. of the two by contacting a labeled ***probe*** :analyte complex with .gtoreq.1 amphiphiles, such as detergents (surfactants) or lipids to form micelles or ***liposomes*** . The invention is also useful for increasing the signal-to-noise ratio when used in conjunction with other assay systems. In preferred embodiments, the analyte and ***probe*** are ***nucleic*** ***acids*** or proteins.

L16 ANSWER 129 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1997:23659 CAPLUS
DN 126:58005
TI Catalase ***mRNA*** expression in the male rat reproductive tract
AU Zini, Armand; Schlegel, Peter N.
CS Cornell Medical Center, New York Hospital, New York, NY, 10021, USA
SO Journal of Andrology (1996), 17(5), 473-480 CODEN: JOAND3; ISSN: 0196-3635
PB American Society of Andrology

DT Journal
LA English
AB Reactive oxygen species (ROS) have been shown to impair sperm function. The actions of ROS are reduced by antioxidant enzymes, including catalase. Although catalase-like activity has been demonstrated in semen, there has been no localization or characterization of catalase ***mRNA*** expression in the male reproductive tract. Catalase ***mRNA*** levels were evaluated by northern blot anal. and in situ ***hybridization*** from the male reproductive organs of normal 60-day-old rats, testes of 10- to 90-day-old rats, and testes of rats subjected to efferent duct ligation. Radioactive ***DNA*** ***probes*** were synthesized using a Klenow polymerase-based specific primer synthetic procedure with a known published sequence for rat catalase. All tissues demonstrated a single transcript of 2.5 kilobases (kb). Low levels of catalase ***mRNA*** were ***detected*** in the normal testis, epididymis, vas deferens, and prostate. No expression was ***detectable*** with northern anal. in seminal ***vesicle*** . The levels of catalase ***mRNA*** in reproductive organs were compared with the high levels of expression ***detectable*** in rat liver. In the testis, catalase expression was primarily localized to peritubular and interstitial cells. In the epididymis and prostate, ***mRNA*** was ***detected*** in the epithelium. The obsd. decrease in catalase ***mRNA*** levels in the maturing rat testis is consistent with its interstitial localization. The increase in testicular catalase ***mRNA*** levels seen in parallel with progressive thinning of the germinal epithelium after efferent duct ligation is also in keeping with a peritubular or interstitial cell localization. The relatively low levels of catalase ***mRNA*** expression in the normal adult male reproductive tract undermine the role of catalase as a major antioxidant enzyme in these tissues. The low levels of catalase ***mRNA*** in the testis, and the undetectable levels in the seminiferous epithelium, however, imply that the germinal epithelium is predisposed to an oxidative state. These findings may help to explain the known susceptibility of the testis to oxidative stress.

L16 ANSWER 130 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:725579 CAPLUS
DN 126:73026
TI Molecular components of the exocytotic machinery in the rat pituitary gland
AU Jacobsson, Gunilla; Meister, Bjorn
CS Department Neuroscience, Karolinska Institute, Stockholm, S-171 77, Swed.
SO Endocrinology (1996), 137(12), 5344-5356 CODEN: ENDOAO; ISSN: 0013-7227
PB Endocrine Society
DT Journal
LA English
AB Several protein components that are essential for exocytotic membrane fusion in neurons have recently been identified. The expression and cellular localization of such protein components were examd. in the rat pituitary gland. In situ ***hybridization*** using isoform-specific oligonucleotide ***probes*** to different exocytotic protein ***mRNAs*** (***mRNAs***) showed strong ***hybridization*** signal for synaptotagmin I, cysteine string protein (CSP), VAMP-2 (***vesicle*** -assocd. membrane protein), cellubrevin, munc-18 (mammalian homolog of unc-18), SNAP-25a (synaptosomal-assocd. protein of 25 kDa), syntaxin 1A, syntaxin 4, syntaxin 5, and .alpha.-SNAP (sol. NSF attachment protein) in the anterior and intermediate, but not in the posterior lobe of the pituitary. Moderate to weak ***hybridization*** signal was ***detected*** for synaptotagmin III, SNAP-25B, and syntaxin 2 ***mRNA*** in the anterior and intermediate, but not in the posterior lobe of the pituitary. Synaptotagmin II, VAMP-1, syntaxin 1B, or syntaxin 3 ***mRNA*** expression could not be ***detected*** in any part of the pituitary gland. Immunofluorescence histochem. in combination with confocal laser microscopy revealed that synaptotagmin-, VAMP-, CSP-, NSF-, and .alpha.-SNAP-like immunoreactivities (-LI) were present in granules of cells in the anterior and intermediate lobe, whereas SNAP-25- and syntaxin-LI were primarily located to the plasma membrane. Synaptotagmin-, VAMP-, CS-, NSF-, .alpha.-SNAP, SNAP-25- and syntaxin-LI were all present in nerve fibers of the posterior lobe. Within cells of the anterior lobe, colocalization could be demonstrated for synaptotagmin I/II- and synaptotagmin III-LI with ACTH-, GH-, PRL- and TSH-, but not FSH- or LH-LI, whereas VAMP, CSP-, NSF-, .alpha.-SNAP-, SNAP-25 and syntaxin-LI were demonstrated in all hormone-contg. cell types of the anterior pituitary. The results show the presence of several protein components and their isoform-specific ***mRNAs*** in the rat pituitary gland, suggesting that these proteins, similar to their roles in regulation of synaptic neurotransmitter release, may participate in exocytotic events in endocrine pituitary cells and in neurosecretory nerve endings of the neurohypophysis.
RE.CNT 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L16 ANSWER 131 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:621874 CAPLUS
DN 125:271444
TI Expression in human endothelial cells of ADP-ribosylation factors, 20-kDa guanine nucleotide- ***binding*** ***proteins*** involved in the initiation of vesicular transport
AU Lee, Chii-Ming; Stevens, Linda A.; Hsu, Hsiu-Ching; Tsai, Su-Chen; Lee, Yuan-Teh; Moss, Joel; Vaughan, Martha
CS Pulmonary-Critical Care Medicine Branch, National Institutes Health, Bethesda, MD, 20892, USA
SO Journal of Molecular and Cellular Cardiology (1996), 28(9), 1911-1920 CODEN: JMCDAY; ISSN: 0022-2828
PB Academic
DT Journal
LA English
AB ADP-ribosylation factors (ARFs) are .apprx.20-kDa, guanine nucleotide- ***binding*** ***proteins*** , initially discovered as stimulators of cholera toxin ADP-ribosyltransferase activity and subsequently shown to participate in vesicular trafficking. Five of the six mammalian ARFs have been identified in human tissues by mol. cloning. They fall into three classes (class I: ARFs 1-3; class II: ARFs 4, 5; class III: ARF 6) based on deduced amino acid sequence, size, phylogenetic anal., and gene structure. Similar to the rab

family of .apprx.20 kDa guanine nucleotide- ***binding*** ***proteins*** , the ARFs appear to function in specific trafficking pathways. The presence of a specific ARF might serve as a marker for that pathway. To verify expression of ARF mRNA and ***protein*** in human umbilical vein endothelial cells, immunoreactivity using antibodies specific for each ARF class, quant. polymerase chain reaction (PCR) using ARF-specific, internal cRNA stds. contg. unique restriction enzyme cleavage sites introduced by point mutations, and Northern anal. with ***probes*** specific for ARFs 1, and 3-6, were utilized. PCR and Northern anal. were in agreement in showing that amts. of mRNA for ARF 1 and ARF 4 were similar and higher than those of ARF 3 and ARF 5 which were greater than ARF 6. Primarily, Class I ARF ***proteins*** were ***detected*** by immunoreactivity, with the majority in the supernatant fraction. The relative expression of ARFs in endothelial cells thus differs from that in neuronal tissues where it had been found that ARF 3 is the predominant species.

L16 ANSWER 132 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:541918 CAPLUS
DN 125:213802
TI Exons lost and found. Unusual evolution of a seminal ***vesicle*** transglutaminase substrate
AU Hagstrom, James E.; Fautsch, Michael P.; Perdok, Monique; Vrabel, Anne; Wieben, Eric D.
CS Department Biochemistry Molecular Biology, Mayo Clinic/Foundation, Rochester, MN, 55905, USA
SO Journal of Biological Chemistry (1996), 271(35), 21114-21119 CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The GP1G gene codes for three of the four abundant androgen-regulated secretory proteins produced by the guinea pig seminal ***vesicle*** . Sequencing of the entire 6.3-kilobase gene and comparison with other mammalian seminal ***vesicle*** secretory protein genes reveals a common three-exon, two-intron organization. However, significant sequence similarity between this group of genes is largely limited to their 5'-flanking regions and first exons, which code almost exclusively for signal peptides in each case. The first intron of GP1G does contain a region with high similarity to the coding exon of a human seminal ***vesicle*** secretory protein gene, semenogelin II. The 3' half of the GP1G gene appears to share a common ancestry with the human SKALP/elafin gene. Sequences related to the elafin promoter, coding, untranslated regions, and introns are clearly identifiable within the GP1G sequence. The elafin gene codes for a serine protease inhibitor and is expressed in a variety of different human tissues. To det. if the GP1G gene was also active outside of the seminal ***vesicle*** , ***RNA*** from a variety of guinea pig tissues was ***hybridized*** to a GP1G ***cDNA*** ***probe*** . At least three novel ***RNA*** bands ***hybridizing*** to the GP1G ***probe*** were ***detected*** in testis ***RNA*** samples, and GP1G-related ***mRNAs*** were also found in other tissues. These data suggest that these seminal ***vesicle*** secretory proteins may have functional roles outside the reproductive system.

L16 ANSWER 133 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:477534 CAPLUS
DN 125:159651
TI Rapid method for visual identification of specific ***DNA*** sequences based on ***DNA*** -tagged ***liposomes***
AU Rule, Geoffrey S.; Montagna, Richard A.; Durst, Richard A.
CS Anal. Chemistry Labs., Cornell Univ., Geneva, NY, 14456-0462, USA
SO Clinical Chemistry (Washington, D. C.) (1996), 42(8, Pt. 1), 1206-1209 CODEN: CLCHAU; ISSN: 0009-9147
PB American Association for Clinical Chemistry
DT Journal
LA English
AB We describe a rapid method for visually detg. specific ***DNA*** sequences at femtomole concns. ***Liposomes*** , encapsulating a red dye and labeled with oligonucleotide, were used in a capillary migration-sandwich ***hybridization*** assay. Capture ***probe*** was immobilized on nitrocellulose strips, and ***liposomes*** , migrating along each strip, formed a visually discernible band in the presence of target ***DNA*** . One femtomole of synthetic target sequence could be ***detected*** in <10 min. Sufficiently stringent ***hybridization*** conditions can be used to allow the discrimination of a 10% mismatch sequence from perfectly complementary ***DNA*** . A 366-base PCR produce was ***detected*** at 200 fmol.

L16 ANSWER 134 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:473727 CAPLUS
DN 125:159149
TI Agonist regulation of .beta.-adrenergic receptors: Immunoblotting and indirect immunofluorescence reveal agonist-induced lateral sequestration and loss of ***binding***
AU Wang, Hsien-yu; Liao, Jyh-Fei; Malbon, Craig C.
CS SUNY/Stony Brook, University Medical Center, Stony Brook, NY, 11794-8661, USA
SO Chinese Journal of Physiology (Taipei) (1996), 39(2), 83-93 CODEN: CJPHDG; ISSN: 0304-4920
PB Chinese Physiological Society
DT Journal
LA English
AB The ***binding*** capacity and subcellular distribution of .beta.2 adrenergic receptors was explored in rat osteosarcoma cells (ROS 17/2.8) following short-term (20 min) and long-term (24 h) agonist treatment. ROS cells express about 27,000 .beta.2 adrenergic receptors per cell, nearly 90% of which appear plasma membrane-assocd. by radioligand ***binding*** anal. When cells were treated with isoproterenol for 20 min, lysed, and the lysate centrifuged over a gradient of sucrose, .beta.-adrenergic receptors in the plasma membrane fraction were found to decline from .apprx.90% to 50%, while those in a lower-d. "light"

vesicle fraction increased from .apprx.10% to 50%. Immunoblotting with specific antisera against the .beta.2 adrenergic receptor revealed, in sharp contrast, that 60% of receptor was distributed in the plasma membrane-enriched fraction, 40% in the light ***vesicle*** fraction of untreated cells. A 20-min exposure to agonist caused the 60:40 distribution of immunoreactive receptor between the two fractions (plasma membrane:light ***vesicle***) to shift to 35:65. The distribution of immunoreactive G .beta.1-subunit (36,000-Mr) between the two fractions was 80:20 and not influenced by exposure of cells to agonist. A 24 h-exposure to agonist changed markedly the distribution of immunoreactive receptor from 60:40 to 90:10 (plasma membrane: light ***vesicle***). Receptor content as detd. by radioligand ***binding*** , in contrast, was not ***detectable*** in either fraction prepd. from ROS cells stimulated by agonist for 24 h. Immunoblotting of post-nuclear, supernatant fractions of whole-cell lysates revealed no change in receptor content after 24 h of agonist treatment. Furthermore, SDS-PAGE and immunoblotting revealed no prominent proteolytic degrdn. of receptor in response to agonist stimulation at 20 min or 24 h. Indirect immunofluorescence of .beta. adrenergic receptors in fixed, intact ROS cells ***probed*** only cell surface-assocd. receptor and yielded equiv. epifluorescence signals for untreated cells and cells treated with isoproterenol for either 20 min, or 24 h. The immunol. results confirm the phenomenon of agonist-induced receptor sequestration, but reveal several new insights: (i) .beta. adrenergic receptor ***protein*** content and subcellular distribution may not be accurately reflected by radioligand ***binding*** ; (ii) receptor down-regulation (loss of ***binding***) after 24 h exposure to agonist cannot be explained by enhanced receptor degrdn.; (iii) the cell surface complement of receptor is not altered at 20 min or 24 h following stimulation of cells with agonist; and (iv) lateral sequestration of receptors to sep. domains of the cell membrane occurs when ROS 17/2.8 cells are exposed to .beta.-agonist for a short time (20 min).

L16 ANSWER 135 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:385607 CAPLUS
DN 125:109516
TI ***Detection*** of living cells that express AP1 using a fluorolabled DNA ***probe***
AU Shimokawa, Noriaki; Miura, Mitsuhiko
CS Dep. Physiol. 1st Div., Gunma Univ. Sch. Med., Maebashi City, 371, Japan
SO FEBS Letters (1996), 388(1), 16-20 CODEN: FEBLAL; ISSN: 0014-5793
PB Elsevier
DT Journal
LA English
AB Activator ***protein*** 1 (AP1) is a complex of Fos and Jun, and it regulates the transcription of genes possessing the AP1-***binding*** sequence. The purpose of this study was to ***detect*** living cells that express AP1 after stimulation with a tumor promoter. The Fos and Jun components of AP1 were induced rapidly and transiently in PC12 cells following the addn. of phorbol ester (phorbol 12-myristate 13-acetate, PMA). The DNA fragment contg. the AP1- ***binding*** sequence was combined with ethidium bromide, which was used as a fluorescent ***probe*** . The ***probe*** was transfected into the cells using cationic ***liposomes*** . Fluorescence in the transfected cells was obsd. using a fluorescence microscope. The nuclei of transfected cells emitted strong fluorescence in the presence of PMA, whereas weak fluorescence in the presence of PMA, whereas weak fluorescence was retained in the cytoplasm in its absence. The former phenomenon is evidence that AP1 combined with the fluorescent ***probe*** was transported into the nuclei. This study suggest that such a fluorolableing method is feasible to ***detect*** living AP1-expressed neurons.

L16 ANSWER 136 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:371920 CAPLUS
DN 125:80504
TI An insulin-dependent membrane aminopeptidase from GLUT-4 containing ***vesicles*** and a ***cDNA*** encoding it
IN Knowles, William J.; Guralski, Donna; Letsinger, John T.; Haigh, Wallace; Hart, John T.; Clairmont, Kevin B.
PA Bayer A.-G., USA
SO PCT Int. Appl., 90 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9609317 A1 19960328 WO 1995-US11902 19950919 W: AU, CA, JP, MX, NZ RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE US 5968764 A 19991019 US 1995-437116 19950504 CA 2200354 AA 19960328 CA 1995-2200354 19950919 AU 9537191 A1 19960409 AU 1995-37191 19950919 AU 709169 B2 19990826 EP 782581 A1 19970709 EP 1995-935008 19950919 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE JP 10506015 T2 19980616 JP 1996-511031 19950919 NZ 294397 A 20000428 NZ 1995-294397 19950919
PRAI US 1994-309232 A 19940920 WO 1995-US11902 W 19950919
AB An aminopeptidase which cleaves insulin has been purified from GLUT-4-contg. ***vesicles*** and cloned. The peptidase has a measured mass of approx. 165 kD, but is 110 kD in its deglycosylated state. It has a predicted mol. wt. of 117,239 based on the amino acid sequence predicted from the ***cDNA*** . Modulators of the activity of the aminopeptidase and a method for treating syndromes of insulin resistance, including diabetes, by administration of such a modulator are also claimed. Antibodies are raised against peptides of the enzyme. The enzyme was obtained from immunoaffinity-purified GLUT-4 ***vesicles*** as a 165 kDa protein and sequences from tryptic fragments identified it as an aminopeptidase and this was confirmed by anal. of substrate preferences and inhibition studies. A ***cDNA*** was cloned by PCR with amino acid sequence-derived primers.

L16 ANSWER 137 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:326673 CAPLUS

DN 125:27311
TI Genetic analysis of two rat acetyltransferases
AU Land, Susan J.; Jones, Richard F.; King, Charles M.
CS Molecular and Chemical Carcinogenesis Program, Karmanos Cancer Inst., Detroit, MI, 48201, USA
SO Carcinogenesis (1996), 17(5), 1121-1126 CODEN: CRNGDP; ISSN: 0143-3334
PB Oxford University Press
DT Journal
LA English
AB Single copies of two closely related acetyltransferase genes were ***detected*** in Sprague-Dawley derived rat ***DNA*** by Southern blot anal. using gene-specific ***hybridization*** ***probes*** for the 3' end of the acetyltransferase coding regions. Sequence anal. of the two acetyltransferase genes showed that both had intronless, 870 bp coding regions and coded for 290 amino acid protein sequences that were .apprx.85% homologous to one another. The calcd. mol. wts. were 33.4 and 33.9 kDa and the calcd. isoelec. points 4.98 and 5.21 for AT1 and AT2, resp. The inferred amino acid sequence of both the genes and ***cDNAs*** indicated that both rat acetyltransferases have cysteines at positions 44, 68 and 223 which have been conserved in all known vertebrate acetyltransferases. Transcripts for both AT1 and AT2 were ***detected*** in brain, colon, esophagus, heart, kidney, liver, lung, mammary gland, dorsal prostate, ventral prostate, salivary gland, seminal ***vesicles*** , small intestine, spleen, stomach, testes, urinary bladder and uterus of Sprague-Dawley rats by both Northern blot and RT-PCR anal. A third gene with >80% sequence homol. to codons 118-158 of acetyltransferase was also ***detected*** .

L16 ANSWER 138 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:325736 CAPLUS
DN 125:5485
TI Localization of pectins and arabinogalactan- ***proteins*** in lily (Lilium longiflorum L.) pollen tube and style, and their possible roles in pollination
AU Jauh, Guang Yuh; Lord, Elizabeth M.
CS Department Botany and Plant Sciences, University California, Riverside, CA, 92521-0124, USA
SO Planta (1996), 199(2), 251-261 CODEN: PLANAB; ISSN: 0032-0935
PB Springer
DT Journal
LA English
AB In lily, adhesion of the pollen tube to the transmitting-tract epidermal cells (TTEs) is purported to facilitate the effective movement of the tube cell to the ovary. The components of the extracellular matrixes (ECMs) of the lily pollen tubes and TTEs that may be involved in this adhesion event were investigated. Several monoclonal antibodies to plant cell wall components such as esterified pectins, unesterified pectins, and arabinogalactan- ***proteins*** (AGPs) were used to localize these mols. in the lily pollen tube and style at both light microscope (LM) and transmission electron microscope (TEM) levels. In addn., (.beta.-D-Glc)3 Yariv reagent which ***binds*** to AGPs was used to ***detect*** GPs in the pollen tube and style. At the LM level, unesterified pectins were localized to the entire wall in in-vivo- and in-vitro-grown pollen tubes as well as to the surface of the stylar TTEs. Esterified pectins occurred at the tube tip region (with some differences in extent in in-vivo vs. in-vitro tubes) and were evenly distributed in the entire style. At the TEM level, esterified pectins were ***detected*** inside pollen tube cell ***vesicles*** and unesterified pectins were localized to the pollen tube wall. The in-vivo pollen tubes adhere to each other and can be sepd. by pectinase treatment. At the LM level, AGP localization occurred in the tube tip of both in-vivo- and in-vitro-grown pollen tubes and, in the case of one AGP ***probe*** , on the surface of the TTEs. Another AGP ***probe*** localized to every cell of the style except the surface of the TTE. At the TEM level, AGPs were mainly found on the plasma plasma membrane and ***vesicle*** membranes of in-vivo-grown pollen tubes as well as on the TTE surface, with same localization to the adhesion zone between pollen tubes and style. (.beta.-D-Glc)3 Yariv reagent bound to the in-vitro-grown pollen tube tip and significantly reduced the growth of both in-vitro- and in-vivo-grown pollen tubes. This led to abnormal expansion of the tube tip and random deposition of callose. These effects could be overcome by removal of (.beta.-D-Glc)3 Yariv reagent which resulted in new tube tip growth zones emerging from the flanks of the arrested tube tip. The possible roles of pectins and AGPs in adhesion during pollination and pollen tube growth are discussed.

L16 ANSWER 139 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:235736 CAPLUS
DN 124:285015
TI Distribution and tissue expression of semenogelin I and II in man as demonstrated by in situ ***hybridization*** and immunocytochemistry
AU Bjartell, Anders; Malm, Johan; Moeller, Christina; Gunnarsson, Mats; Lundwall, Aake; Lilja, Hans
CS Department Urology, University Hospital, Malmoe, S-205 02, Swed.
SO Journal of Andrology (1996), 17(1), 17-26 CODEN: JOAND3; ISSN: 0196-3635
PB American Society of Andrology
DT Journal
LA English
AB Semenogelin I and II (SgI, SgII) are two sep. gene products of chromosome 20 with extensive (.apprx.80%) identity in primary structure. They are mainly responsible for immediate gel formation of freshly ejaculated semen. Degrdn. of SgI and SgII is due to the proteolytic action of prostate-specific antigen (PSA); it results within 5-15 min in liquefaction of semen and release of progressively motile spermatozoa. By means of ***cDNA*** cloning and Northern blots, SgI and SgII transcripts have previously been shown to be abundant in human seminal ***vesicles*** , but SgII alone is suggested to be expressed at low levels in the epididymis. To characterize the expression and tissue distribution of SgI and SgII in greater detail, we produced monoclonal IgGs for

immunocytochem. (ICC) and specific [35S]-, digoxigenin-, or alk. phosphatase-labeled 30-mer antisense ***probes*** to SgI and SgII for in situ ***hybridization*** (ISH). Immunocytochem. staining for both SgI and SgII, and ISH ***detection*** of both SgI and SgII transcripts, were demonstrated in the cytoplasm of seminal ***vesicle*** epithelium. ISH showed SgII alone to be expressed in the epithelium of the epididymal cauda. Neither ICC nor ISH yielded any evidence of SgI or SgII expression in caput or corpus epithelium or in any stromal cells of the epididymis. Consistent with our previous findings using polyclonal IgG, monoclonal anti-SgI/SgII IgGs identified epitopes on the posterior head, midpiece, and tail of ejaculated spermatozoa. Spermatozoa in the epididymal cauda were also immunoreactive, but those in the caput or corpus region of the epididymis as well as those in the testis were neg. As shown by ICC, neither SgI nor SgII were expressed in the testis, the prostate, the female genital tract, or other normal human tissue specimens. Although the significance of Sg attachment to epididymal and ejaculated spermatozoa remains to be established, monoclonal anti-Sg IgG might prove useful in establishing the origin of seminal ***vesicle*** tissue components in prostate core biopsies or other biopsy specimens.

L16 ANSWER 140 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:70444 CAPLUS
DN 124:107049
TI Stimulation of epidermal growth factor gene expression during the fetal mouse reproductive tract differentiation: role of androgen and its receptor
AU Gupta, Chhanda; Singh, Mandaleswar
CS Dep. Pediatr. Endocrinol., Child. Hosp. Pittsburgh, Pittsburgh, PA, 15213, USA
SO Endocrinology (1996), 137(2), 705-11 CODEN: ENDOAO; ISSN: 0013-7227
PB Endocrine Society
DT Journal
LA English
AB The authors have shown previously that epidermal growth factor (EGF) plays a role in testosterone-dependent fetal Wolffian duct differentiation. To further assess the role for EGF, the authors detd. whether EGF gene expression was modulated in response to male reproductive tract differentiation. The expression of EGF ***mRNA*** was measured by an RT-PCR assay using primer pairs spanning the coding sequence of 3228 nucleotide (nt) to 3401 nt. Using the RT-PCR reaction, an amplimer of the expected size, 173 bp, was ***detected*** in the fetal male reproductive tract. The amplimer ***hybridized*** with a radioactive ***probe*** representing an internal sequence of the amplified product and was digested by the restriction enzyme HaeIII, which has a unique cleavage site at 3365 nt. The level of EGF ***mRNA*** at different stages of sexual differentiation was measured by a newly developed quant. competitive ***RNA*** PCR (QCPCR) assay for EGF ***mRNA*** . The assay was sensitive and reproducible within a linear range of amplification with 5 .times. 104 to 140 .times. 104 copies of ***mRNA*** . Using the quant. competitive ***RNA*** PCR the authors found that the level of EGF ***mRNA*** was higher in the male reproductive tract than that in the female reproductive tract. Exposure to testosterone (40 mg/kg/day) during days 13-17 of gestation induced the Wolffian duct in the female fetuses and resulted in stimulation of EGF- ***mRNA*** expression. Similarly, an antiandrogen receptor, flutamide (100 mg/kg/day) exposure during days 13-17 of gestation inhibited male reproductive tract differentiation and resulted in inhibition of EGF-***mRNA*** expression. Moreover, during the differentiation of the male reproductive tract. there was a biphasic increase in the level of EGF- ***mRNA*** , first at day 14 of gestation, the period of onset of testicular activity and Wolffian duct morphogenesis, and second at day 18 of gestation, corresponding to onset of differentiation of the urogenital sinus, epididymal duct, and seminal ***vesicle*** . Thus, it appears that testosterone-induced male sexual differentiation is accompanied by an increase in EGF gene expression.

L16 ANSWER 141 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:70198 CAPLUS
DN 124:279942
TI Mouse preproendothelin-1 gene. ***cDNA*** cloning, sequence analysis and determination of sites of expression during embryonic development
AU Chan, Theobald Sing Kwok; Lin, Colin Xiao Feng; Chan, Wood Yee; Man, Stephen Sum; Chung, Sookja Kim
CS Institute of Molecular Biology, University of Hong Kong, Hong Kong
SO European Journal of Biochemistry (1995), 234(3), 819-26 CODEN: EJBCAI; ISSN: 0014-2956
PB Springer
DT Journal
LA English
AB The ***cDNA*** encoding the mouse prepro-endothelin-1 (PPET-1)was cloned and its nucleotide sequence was detd. The putative PPET-1 peptide processing sites were all conserved and the deduced 21-amino-acid mature ET-1 peptide was identical to that of the rat, human, bovine, porcine and rabbit. By the cloned ***cDNA*** as a ***probe*** for in situ ***hybridization*** , PPET-1 ***mRNA*** was ***detected*** in different tissues at different stages of mouse embryonic development. Embryos at a stage as early as 9.5 days postcoitum (E9.5) had very strong expression in the branchial epithelium, optic ***vesicle*** and the endothelial cells of large blood vessels, including the dorsal aorta and aortic arches. While the expression level in the branchial epithelium was decreasing towards the later stage of embryogenesis, the expression in the endothelial cells increased with age. At E10.5, PPET-1 ***mRNA*** was also ***detected*** in the optic ***vesicle*** as well as in the developing gut epithelium. At later stage of development, the expression of PPET-1 was primarily found in the vascular endothelial cells, cochlea, eye and the gut, with the highest of PPET-1 ***mRNA*** in the endothelial cells of the lung.

L16 ANSWER 142 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:31315 CAPLUS

DN 124:78616
TI Distinct transcripts are recognized by sense and antisense riboprobes for a member of the murine HSP70 gene family, HSP70.2, in various reproductive tissues
AU Murashov, Alexander K.; Wolgemuth, Debra J.
CS Dent. Reprod. Sci., Columbia Univ. Coll. Physicians Surg., New York, NY, USA
SO Molecular Reproduction and Development (1996), 43(1), 17-24 CODEN: MREDEE; ISSN: 1040-452X
PB Wiley-Liss
DT Journal
LA English
AB The expression of hsp70.2, an hsp70 gene family member, originally characterized by its high levels of expression in germ cells in the adult mouse testis, was ***detected*** in several other reproductive tissues, including epididymis, prostate, and seminal ***vesicles*** , as well as in extraembryonic tissues of mid-gestation fetuses. In addn., ***hybridization*** with ***RNA*** ***probes*** transcribed in the sense orientation surprisingly indicated the presence of slightly larger "antisense" transcripts in several tissues. The levels of antisense transcripts varied among the tissues, with the highest signal ***detected*** in the prostate and no signal being ***detectable*** in the testis. Consistent with these results, in situ ***hybridization*** anal. clearly localized the sense-orientation transcripts to pachytene spermatocytes, while no antisense-orientation transcripts were obsd. in adjacent sections of the same tubules. Our findings having thus shown that although hsp70.2 was expressed abundantly and in a highly stage-specific manner in the male germ line, it was also expressed in other murine tissues. Furthermore, we have made the surprising observation of antisense transcription of the hsp70.2 gene in several mouse tissues, revealing another level of complexity in the regulation and function of heat shock proteins.

L16 ANSWER 143 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:21100 CAPLUS
DN 124:137158
TI A TnphoA insertion within the Bradyrhizobium japonicum sipS gene, homologous to prokaryotic signal peptidases, results in extensive changes in the expression of PBM-specific nodulins of infected soybean (Glycine max) cells
AU Mueller, P.; Ahrens, K.; Keller, T.; Klaucke, A.
CS Philipps-Universitaet Marburg, Marburg, 35032, Germany
SO Molecular Microbiology (1995), 18(5), 831-40 CODEN: MOMIEE; ISSN: 0950-382X
PB Blackwell
DT Journal
LA English
AB Bradyrhizobium japonicum mutant 132 was obtained by random TnphoA mutagenesis of strain 110spc4. A 6.5 kb BamHI kanamycin-resistance-coding ***DNA*** fragment of mutant 132 was used as a ***hybridization*** ***probe*** to clone the corresponding wild-type fragment. ***DNA*** sequence anal. of a 3213 bp BamHI-ClaI fragment revealed that three open reading frames (ORFs) were encoded in the same orientation. Based on sequence similarities to other proteins in the database, the second ORF was called sipS (signal peptidase). The TnphoA insertion in mutant 132 was in frame near the 3' end of sipS. The resulting SipS-PhoA hybrid polypeptide was shown to be expressed in free-living B. japonicum and in Escherichia coli cultures. An immunoblot anal. with a polyclonal antibody directed against the alk. phosphatase revealed the appearance of a weak signal of a 70 kDa polypeptide both in B. japonicum and in E. coli, in agreement with the calcd. size of the hybrid polypeptide. A much stronger 52 kDa band was also ***detected*** . Mutant 132 was specifically disturbed in the interaction with soybean (Glycine max) when the bacteria were released from the infection threads. The bacteroids were not stably maintained within the symbiosome. Numerous ***vesicles*** were found in the plant cytosol, which finally resulted in the formation of large vacuoles within the infected nodule cells. Immunohistochem. analyses with antibodies directed against nodulins of the peribacteroid membrane indicated a lower expression of these proteins. The mutant phenotype was genetically complemented by a 4.4 kb BamHI fragment including sipS. Subfragments thereof also complemented a temp.-sensitive E. coli lepB mutant, demonstrating that the B. japonicum fragment was functionally replacing LepIs in E. coli. Genetic studies suggested that the three genes are organized in one common operon which is expressed from a promoter upstream of the sequenced region. Inactivation of the gene downstream of sipS did not result in a ***detectable*** phenotype.

L16 ANSWER 144 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:996620 CAPLUS
DN 124:140396
TI Novel functionalized hydrophilic acridinium esters
IN Law, Say-jong; Sotiriou-Leventis, Chaiklia; Natrajan, Anand; Jiang, Qingping; Connolly, Peter B.; Kilroy, John P.; Mccudden, Constance R.; Tirrell, Stephen M.
PA Ciba Corning Diagnostics Corp., USA
SO PCT Int. Appl., 71 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9527702 A1 19951019 WO 1995-IB244 19950406 W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG US 5656426 A 19970812 US 1994-225165 19940408 AU 9520816 A1 19951030 AU 1995-20816 19950406 AU 703436 B2 19990325 EP 754178 A1

19970122 EP 1995-913298 19950406 EP 754178 B1 20030115 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI BR 9507307 A 19970902 BR 1995-7307 19950406 JP 10503169 T2 19980324 JP 1995-526216 19950406 AT 231130 E 20030215 AT 1995-913298 19950406
PRAI US 1994-225165 A1 19940408 US 1988-226639 B1 19880801 US 1992-826186 A3 19920122 US 1993-32231 A2 19930317 WO 1995-IB244 W 19950406
OS MARPAT 124:140396
AB Novel acridinium esters that are useful, either alone or when incorporated into ***liposomes*** , as chemiluminescent agents in ***binding*** assays (e.g., immunoassays and gene ***probe*** assays) with improved sensitivity are disclosed. In addn., the synthesis of these esters and their use in assays for ***detecting*** an analyte is described. In particular, assays for testosterone and the rubella virus are disclosed. In example, synthesis of acridinium ester for immunoassay of testosterone, anti-Rubella virus IgG, and TSH was described.

L16 ANSWER 145 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:857842 CAPLUS
DN 123:251895
TI Temporal and spatial patterns of gene expression for the hatching enzyme in the teleost embryo, Oryzias latipes
AU Inohaya, Keiji; Yasumasu, Shigeki; Ishimaru, Mika; Ohyama, Akihiro; Iuchi, Ichiro; Yamagami, Kenjiro
CS Life Science Inst., Sophia Univ., Tokyo, 102, Japan
SO Developmental Biology (1995), 171(2), 374-85 CODEN: DEBIAO; ISSN: 0012-1606
PB Academic
DT Journal
LA English
AB The hatching enzyme of the medaka, Oryzias latipes, consists of two proteases, high choriolytic enzyme (HCE) and low choriolytic enzyme (LCE). They are synthesized and accumulated in the same unicellular hatching glands and are secreted from them at the end of embryonic development to digest the egg envelope. Recently, these enzymes were purified, and their ***cDNA*** clones were isolated. In the present study, we examd. temporal and spatial patterns of expression of the hatching enzyme genes during embryogenesis using ***cDNAs*** for HCE and LCE as ***probes*** . According to Northern blotting anal., the expression of both genes started at the same time (stage 21-22 embryos: brain differentiation and lens formation) and the patterns of expression changed in parallel during development. In situ ***hybridization*** to whole embryo and the sections revealed that the expression of the HCE genes was ***detected*** first in the anterior end of the hypoblast layer in stage 16-17 (late gastrula) embryos. Distinct signals of the HCE gene expression were then ***detected*** in a group of cells located at the front of the head rudiment of embryos at stage 18-19 (1 somite). Treatment of the embryos with retinoic acid, which is known to affect the anterior differentiation of embryos, suppressed the hatching gland cell differentiation in accordance with the results of in situ ***hybridization*** . In stage 22 embryos, the HCE-pos. cells dispersed in an ectodermal layer under the forebrain and optic ***vesicles*** . Thereafter, the hatching gland cells expressing the HCE ***mRNA*** were aligned along the branchial arches and finally rearranged to the inner wall of the pharyngeal cavity, following a marked elongation of the lower jaw. The results of in situ ***hybridization*** to whole embryos at consecutive developmental stages demonstrated that the hatching gland cells located at the most anterior portion of the hypoblast migrated posteriorward to endoderm (pharyngeal endoderm) by way of ectoderm, while they were expressing ***mRNA*** for the hatching enzyme. Retinoic acid treatment of embryos gave rise to aberrations in the final location of the hatching gland cells probably by disturbing their migration. Moreover, the no. of hatching gland cells increased markedly during their migration. This fact strongly suggested a concurrence of gene expression and mitosis of a gland cell and/or a successive initiation of gene expression in maturing gland cells during migration.

L16 ANSWER 146 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:818069 CAPLUS
DN 123:224748
TI Intracellular transport of the murine leukemia virus during acute infection of NIH 3T3 cells: nuclear import of nucleocapsid ***protein*** and integrase
AU Risco, Cristina; Menendez-Arias, Luis; Copeland, Terry D.; da Silva, Pedro Pinto; Oroszlan, Stephen
CS Biological Carcinogenesis and Development Program, Program Resources, Inc./Dyncorp., Frederick, MD, 21702-1201, USA
SO Journal of Cell Science (1995), 108(9), 3039-50 CODEN: JNCSAI; ISSN: 0021-9533
PB Company of Biologists
DT Journal
LA English
AB The entry and intracellular transport of Moloney-murine leukemia virions inside mouse NIH 3T3 cells have been followed by electron microscopy techniques. Five viral ***proteins*** -matrix (MA, p15), capsid (CA, p30), nucleocapsid (NC, p10), integrase (IN), and the envelope glycoprotein (SU, gp70) - were located by immunolabeling using gold ***probes*** . After entering the cells, viral particles were frequently ***detected*** inside cytoplasmic ***vesicles*** of variable size. Their viral envelope was apparently lost during intracytoplasmic transport. When the unenveloped viral cores reached the nuclear membrane or its vicinity, they were disrupted. Two of the immunolabeled ***proteins*** , NC and IN, were ***detected*** entering the nucleus of non-dividing cells, where both were targeted to the nucleolus. However, MA and CA were found only in the cytoplasm. NC is a nucleic acid-***binding*** ***protein*** which contains potential nuclear localization signals. The authors suggest that NC could enter the nucleus as part of a nucleoprotein complex, assocd. with IN, and possibly, also with viral DNA.

L16 ANSWER 147 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:698367 CAPLUS

DN 123:134942
TI Cellular localization of synaptotagmin I, II, and III ***mRNAs*** in the central nervous system and pituitary and adrenal glands of the rat
AU Marqueze, B.; Boudier, J. A.; Mizuta, M.; Inagaki, N.; Seino, S.; Seagar, M.
CS INSERUM U 374, Institut Jean Roche, FAculte de Medecine-Nord, CEDEX, Fr.
SO Journal of Neuroscience (1995), 15(7, Pt. 1), 4906-17 CODEN: JNRSDS; ISSN: 0270-6474
PB Oxford University Press
DT Journal
LA English
AB Three isoforms of synaptotagmin, a synaptic ***vesicle*** protein involved in neurotransmitter release, have been characterized in the rat, although functional differences between these isoforms have not been reported. In situ ***hybridization*** was used to define the localization of synaptotagmin I, II, and III transcripts in the rat CNS and pituitary and adrenal glands. Each of the three synaptotagmin genes has a unique expression pattern. The synaptotagmin III gene is expressed in most neurons, but transcripts are much less abundant than the products of the synaptotagmin I and II genes. A majority of neurons in the forebrain expressed both synaptotagmin I and III ***mRNAs*** while synaptotagmin II gene expression was confined to subsets of neurons in layers IV-VI of the cerebral cortex, in the dentate granule cell region, the hilus, and the CA1-CA3 areas of the hippocampus. In the cerebellum, all three transcripts were visualized in the granule cell layer. Furthermore, synaptotagmin I ***probes*** revealed striking differences between distinct populations of neurons, as in addn. to moderate labeling of granule cells, much more prominent ***hybridization*** signals were ***detected*** on scattered cell bodies likely to be Golgi interneurons. In the most caudal part of the brain, synaptotagmin II transcripts were abundant and were coexpressed with synaptotagmin III ***mRNAs*** . This pattern was found in putative motoneurons of the spinal cord, suggesting that the two isoforms might be involved in exocytosis at the neuromuscular junction. Only synaptotagmin I ***mRNAs*** were ***detected*** in the anterior and intermediate pituitary and in adrenal medullary cells. These data reveal an unexpectedly subtle segregation of the expression of synaptotagmin genes and the existence of multiple combinations of synaptotagmin isoforms which may provide diversity in the regulation of neurosecretion.

L16 ANSWER 148 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:645725 CAPLUS
DN 123:48149
TI Ultrastructural expression of prolactin receptor in rat liver
AU Ouhtit, Allal; Ronsin, Brice; Kelly, Paul A.; Morel, Gerard
CS Institut Pasteur de Lyon, Lyon, 69365, Fr.
SO Biology of the Cell (1994), 82(2-3), 169-76 CODEN: BCELDF; ISSN: 0248-4900
PB Elsevier
DT Journal
LA English
AB Prolactin (PRL) is a trophic hormone which acts mainly at the plasma membrane level of hepatocyte. The mechanisms involved in the transduction of the signal after ***binding*** of PRL to its receptors are not yet well documented. In the present study the authors have examd. the subcellular patterns of PRL receptor expression in rat liver by ultrastructural in situ ***hybridization*** and immunocytol. In situ ***hybridization*** was performed using digoxigenin-labeled oligonucleotide ***probes*** revealed by indirect immunogold reactions. The expression of both the long and short forms of PRL-receptor ***mRNA*** was readily identified in the cytoplasmic matrix, and in assocn. with the endoplasmic reticulum, but a low expression of these forms was ***detected*** in the nucleus of hepatocyte. Moreover, this expression appeared higher in female than male hepatocytes. Immunogold ***detection*** of PRL-receptor ***protein*** was performed using two monoclonal antibodies (U5 and T6), specific to the extracellular domain of the PRL-receptor. Indirect immunocytol. ***detection*** confirmed the presence of PRL receptor-like immunoreactivity at the level of the plasma membrane, and in the cytoplasmic matrix assocd. or not with endocytic ***vesicles*** , the endoplasmic reticulum, the peroxisomes, the Golgi complex, and the nuclei of both male and female hepatocytes. No clear difference was found between U5 and T6 mAbs, with regard to the subcellular localization. These results show the distribution of both PRL-receptor ***mRNA*** and PRL receptor ***protein*** in numerous subcellular compartments of hepatocyte, and evidence that these compartments are involved in the early stage of PRL action.

L16 ANSWER 149 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:644601 CAPLUS
DN 123:276431
TI Molecular cloning of an amphibian insulin receptor substrate 1-like ***cDNA*** and involvement of phosphatidylinositol 3-kinase in insulin-induced Xenopus oocyte maturation
AU Liu, X. Johne; Sorisky, Alexander; Zhu, Li; Pawson, Tony
CS Loeb Medical Res. Inst., Univ. Ottawa, Ottawa, ON, K1Y 4E9, Can.
SO Molecular and Cellular Biology (1995), 15(7), 3563-70 CODEN: MCEBD4; ISSN: 0270-7306
PB American Society for Microbiology
DT Journal
LA English
AB An insulin receptor substrate 1 (IRS-1)-like ***cDNA*** was isolated from a Xenopus ovary ***cDNA*** library by low-stringency ***hybridization*** using rat IRS-1 ***cDNA*** as a ***probe*** . The deduced amino acid sequence encoded by this ***cDNA*** (termed XIRS-L) is 67% identical (77% similar) to that of rat IRS-1. Significantly, all the insulin-induced tyrosine phosphorylation sites identified in rat IRS-1, including those responsible for ***binding*** to the Src homol. domains of phosphatidylinositol (PI) 3-kinase, Syp and Grb2, are conserved in XIRS-L. Both ***mRNA*** and ***protein*** corresponding

to the cloned XIRS-L can be ***detected*** in immature Xenopus oocytes. Recombinant XIRS-L ***protein*** produced in insect cells or a bacterial glutathione S-transferase fusion ***protein*** contg. the putative PI 3-kinase ***binding*** site can be phosphorylated in vitro by purified insulin receptor kinase (IRK) domain, and the IRK-catalyzed phosphorylation renders both ***proteins*** capable of ***binding*** PI 3-kinase in Xenopus oocyte lysates. Another glutathione S-transferase fusion ***protein*** contg. the C terminus of XIRS-L and including several putative tyrosine phosphorylation sites is also phosphorylated by IRK in vitro, but it failed to ***bind*** PI 3-kinase. Insulin stimulation of immature Xenopus oocytes activates PI 3-kinase in vivo [as indicated by an elevation of PI(3,4)P2 and PI(3,4,5)P3] as well as oocyte maturation (as indicated by germinal ***vesicle*** breakdown). Pretreatment of these oocytes with wortmannin inhibited insulin-induced activation of PI 3-kinase in vivo. The same treatment also abolished insulin-induced, but not progesterone-induced, germinal ***vesicle*** breakdown. These results (i) identify an IRS-1-like mol. in immature Xenopus oocytes, suggesting that the use of IRS-1-like Src homol. 2 domain-docking ***proteins*** in signal transduction is conserved in vertebrates, and (ii) strongly implicate PI 3-kinase as an essential effector of insulin-induced oocyte maturation.

L16 ANSWER 150 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:594892 CAPLUS
DN 123:223953
TI Model of forebrain regionalization based on spatiotemporal patterns of POU-III homeobox gene expression, birthdates, and morphological features
AU Alvarez-Bolado, G.; Rosenfeld, M.G.; Swanson, L.W.
CS Program in Neural, Informational, and Behavioral Sciences, University of Southern California, Los Angeles, CA, 90089-2520, USA
SO Journal of Comparative Neurology (1995), 355(2), 237-95 CODEN: JCNEAM; ISSN: 0021-9967
DT Journal
LA English
AB In situ ***hybridization*** was used to map spatiotemporal expression patterns of the four known intronless POU-III transcription factor genes Brn-1, Brn-2, Brn-4, and Tst-1 in the developing rat forebrain ***vesicle*** , beginning on embryonic day 10. The results indicate that the proliferation layers (ventricular and subventricular) and mantle layer of the forebrain neural tube each display a strikingly unique pattern of regionalized POU-III expression. Within a particular region, or layer within a region, none to all four of the ***mRNAs*** may be ***detected*** , and during development a particular ***mRNA*** in a particular region displays one of five expression patterns, or a combination of these patterns, which may be described as conserved, lost, transient, acquired, or redeployed expression. In the developing brain as a whole, Brn-1 and Brn-2 early on display somewhat different spatial expression patterns that converge to essential identity in the adult, whereas Brn-4 expression is initially broad and becomes much more restricted in the adult, and Tst-1 expression expands greatly through development. Usually, though not always, expression patterns tend to correlate with major histol. features in the forebrain (often internal or external sulci assocd. with proliferation zones), and little evidence for waves of expression moving through the whole forebrain over time was obtained. Thus, clear differences in ***hybridization*** intensity often are obsd. between the cerebral cortex, basal telencephalic nuclei, hypothalamus, ventral thalamus, dorsal thalamus, and pretectal region. In contrast, transverse bands of ***hybridization*** extending from the roof to the floor of the forebrain, corresponding to proposed neuromeres, were not obsd. with these ***probes*** . The results suggest that POU-III transcription factors help define specific regions in the early neuroepithelium as well as different cellular phenotypes in the ventricular, subventricular, and mantle layers of specific regions later in development. Thus, the functions of these regulatory proteins may be different in proliferating neuroepithelial cells, young neurons, and mature neurons and appear to be region-specific.

L16 ANSWER 151 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:548452 CAPLUS
DN 122:282906
TI Oxysterol (7.beta.-hydroxycholesteryl-3-oleate) promotes serotonergic reinnervation in the lesioned rat spinal cord by reducing glial reaction
AU Gimenez y Ribotta, M.; Rajaofetra, N.; Morin-Richaud, C.; Alonso, G.; Bochelen, D.; Sandillon, F.; Legrand, A.; Mersel, M.; Privat, A.
CS Univ. of Montpellier II, Montpellier, Fr.
SO Journal of Neuroscience Research (1995), 41(1), 79-95 CODEN: JNREDK; ISSN: 0360-4012
PB Wiley-Liss
DT Journal
LA English
AB In the present study, following previous experience with electrolytic lesion of the rat brain, and subsequent redn. of reactive gliosis with 7.beta.-hydroxy-cholesterol derivs. (Bochelen, D.; et al., 1992), the authors performed a hemisection of the spinal cord in adult rats and investigated the influence of oxysterol on the intensity of the astrocytic reaction and the axonal regeneration. The authors have shown here that local administration of ***liposomes*** contg. this oxysterol reduced the intensity of the astroglial reaction on the sectioned side, as seen with immunocytochem. ***detection*** of glial fibrillary acidic protein (GFAP) and by in situ ***hybridization*** with a specific ***RNA*** ***probe*** . Moreover, radioautog. evaluation of astrocyte proliferation with tritiated thymidine evidenced a redn. of the astrocyte labeling index. In addn., double immunocytochem. ***detection*** of GFAP and polysialylated neural cell adhesion mol. (E-NCAM) revealed a decrease of the expression of this mol. in reactive astrocytes of the treated animals. Finally, immunocytochem. ***detection*** of serotonin was detd. in the raphe spinal projections, which constitute a major descending system. In treated animals, serotonergic axons originating from the intact side reinnervated the dorsal horn of the sectioned side, below the hemisection. These results demonstrate that oxysterol can reduce the astrocytic reaction following spinal cord injury, promoting the serotonergic reinnervation of a denervated territory.

L16 ANSWER 152 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:320094 CAPLUS
DN 122:76029
TI Direct and biochemically functional ***detection*** of retrovirus in biological samples
IN Faff, Ortwin
PA Germany
SO PCT Int. Appl., 17 pp. CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9428115 A1 19941208 WO 1994-DE610 19940531 W: AU, BR, CA, CN, JP, RU, US RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE DE 4416300 A1 19941208 DE 1994-4416300 19940509 DE 4416300 C2 19970410 AU 9467933 A1 19941220 AU 1994-67933 19940531 EP 707635 A1 19960424 EP 1994-916144 19940531 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE JP 08510136 T2 19961029 JP 1994-500112 19940531 US 6268123 B1 20010731 US 1996-557108 19960228
PRAI DE 1993-4318229 A 19930601 DE 1994-4416300 A 19940509 WO 1994-DE610 W 19940531
AB Structure-specific extn. with immobilized ligands directed against the viral surface is combined with function-specific retrovirus enzyme reactions (reverse transcriptase, RNase H, integrase, or protease) for diagnosis, monitoring and treatment of viral diseases, in transfusion and transplantation medicine, in virol. research and development, and for the biol. quality control of pharmaceutical and biotechnol. products. Reverse transcription by reverse transcriptase, using retroviral RNA as template and tRNA as primer, is particularly suitable for the retrovirus-specific enzyme reaction. The newly synthesized cDNA products are identified by radioactive, photometric, luminescent, or fluorescent processes. This process represents a biochem. simulation of the natural process of retroviral infection and development within the cell (reverse transcription, integration, maturation) and allows several retroviral components (surface glycoproteins, enzymes, structural ***proteins*** , RNA and tRNA) to be simultaneously ***detected*** . The process takes 1-2 days; it may be easily and routinely carried out in a microtiter format and thus allows many ***probes*** to be processed simultaneously within a short time. In addn., the process may be universally applied to all species of retrovirus by corresponding specific ligands. Thus, wells of a microtiter plate were coated with antibodies to T47D retroviral particles and incubated successively with (a) a virus-contg. sample and (b) a buffered lysis-reaction mixt. contg. DTT, EDTA, deoxyribonucleoside triphosphates, dUTP-biotin, and dUTP-digoxigenin. The reaction mixt. was then transferred to a streptavidin-coated microtiter plate and the immobilized cDNA was ***detected*** by incubation with peroxidase-labeled anti-digoxigenin antibody and ABTS (peroxidase substrate).

L16 ANSWER 153 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:317744 CAPLUS
DN 122:127340
TI The interaction between ***protein*** kinase C and lipid cofactors studied by simultaneous observation of lipid and ***protein*** fluorescence
AU Pap, Eward H. W.; van den Berg, Petra A. W.; Borst, Jan Willem; Visser, Antonie J. W. G.
CS Dep. of Biochemistry, Agricultural Univ., Wageningen, 6703 HA, Neth.
SO Journal of Biological Chemistry (1995), 270(3), 1254-60 CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
AB The interaction of ***protein*** kinase C (PKC) with lipids was ***probed*** by a dual approach. Pyrene-labeled lipid analogs of diacylglycerol, phosphatidylserine (PS), phosphatidylinositol (PI), PI 4-phosphate (PIP), and phosphatidylcholine (PC) were used both as acceptors of Trp excitation energy of PKC and as membrane ***probes*** for intramol. and intermol. lipid chain collisions by measuring the ratio of excimer-to-monomer fluorescence intensity (EM). Both in micelles of polyoxyethylene 9-lauryl ether and in dioleoyl-PC ***vesicles*** , the interaction of PKC with monopyrenyl-PS (pyr-PS) in the absence of Ca2+ resulted in a relatively slow decrease of the EM value. This effect on the lipid dynamics was accompanied by quenching of the Trp fluorescence of PKC. The addn. of Ca2+ resulted in a rapid further decrease in the EM ratio of pyr-PS and in addnl. quenching of Trp fluorescence. When 4 mol% of pyr-PS was replaced by 0.5 mol% of dipyrenyl-labeled diacylglycerol, a decrease in the intramol. excimer formation rate and Trp fluorescence could only be ***detected*** in the presence of Ca2+ and PS. Strong ***binding*** was also obsd. with dipyrenyl-labeled PIP (dipyr-PIP), but not with the other dipyrenyl-labeled lipids (PI, PS, or PC). In addn., the EM ratios of dipyr-PIP were not affected by phorbol 12-myristate 13-acetate, indicating that phorbol 12-myristate 13-acetate and dipyr-PIP can band simultaneously to PKC.

L16 ANSWER 154 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:299222 CAPLUS
DN 122:100820
TI Integrated light-scattering spectroscopy, a sensitive ***probe*** for ***peptide*** - ***vesicle*** ***binding*** : application to the membrane-bound colicin E1 channel ***peptide***
AU Strawbridge, K. B.; Palmer, L. R.; Merrill, A. R.; Hallett, F. R.
CS Dept. of Chemistry and Biochemistry, University of Guelph, Guelph, ON, N1G 2W1, Can.
SO Biophysical Journal (1995), 68(1), 131-6 CODEN: BIOJAU; ISSN: 0006-3495
PB Biophysical Society
DT Journal
LA English

AB Integrated light-scattering (ILS) spectroscopy was used to monitor the ***binding*** of the colicin E1 channel ***peptide*** to POPC:POPG large unilamellar ***vesicles*** (LUV; 60:40, mole:mole) at acidic pH (3.5). ***Binding*** conditions were chosen such that nearly all of the channel ***peptide*** was bound to the ***vesicles*** with little free ***peptide*** remaining in soln. The increase in ***vesicle*** size upon the insertion of the channel ***peptide*** was measured by performing a discrete inversion technique on data obtained from an ILS spectrometer. ***Vesicle*** size no. distributions were detd. for five different systems having ***peptide*** / ***vesicle*** ratios of approx. 0, 77, 154, 206, and 257. The expt. was repeated four times (twice at two different ***vesicle*** concns.) to det. reproducibility. The relative changes in ***vesicle*** radius upon ***peptide*** ***binding*** to the membrane ***vesicles*** was remarkably reproducible even though these changes represented only a few nanometers. A comparison of ***vesicle*** size no. distributions in the absence of bound ***peptide*** was made between ILS and dynamic light scattering (DLS) data and showed similar results. However, DLS was incapable of ***detecting*** the small changes due to ***peptide*** -induced ***vesicle*** swelling. The membrane-bound vol. of the colicin E1 channel ***peptide*** was .apprx.177 nm3. These data indicate that in the absence of a membrane potential (closed channel state) the colicin E1 channel ***peptide*** inserts into the membrane resulting in a significant displacement of the lipid bilayer as evidenced from the dose-dependent increase in the ***vesicle*** radius. These results indicate that ILS spectroscopy is a sensitive sizing technique that is capable of ***detecting*** relatively small changes in membrane ***vesicles*** and may have a wide application in the detn. of ***peptide*** ***binding*** to membrane ***vesicles*** .

L16 ANSWER 155 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:284834 CAPLUS
DN 122:52169
TI Identification of synaptic proteins and their isoform ***mRNAs*** in compartments of pancreatic endocrine cells
AU Jacobsson, Gunilla; Bean, Andrew J.; Scheller, Richard H.; Juntti-Berggren, Lisa; Deeney, Jude T.; Berggren, Per Olof; Meister, Bjorn
CS Dep. Neuroscience, Karolinska Institute, Stockholm, S-171 77, Swed.
SO Proceedings of the National Academy of Sciences of the United States of America (1994), 91(26), 12487-91 CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English
AB Several proteins that are of importance for membrane trafficking in the nerve terminal have recently been characterized. The authors have used Western blot and immunohistochem. to show that synaptotagmin, synaptobrevin/VAMP (***vesicle*** -assocd. membrane protein), SNAP-25 (synaptosomal-assocd. protein of 25 kDa), and syntaxin proteins are present in cells of the islets of Langerhans in the endocrine pancreas. Synaptotagmin-like immunoreactivity (-LI) was localized to granules within the cytoplasm of a few endocrine cells located in the periphery of the islets, identified as somatostatin-contg. cells, and in many nerve fibers within the islets. VAMP-LI was seen in granules of virtually all pancreatic islet cells and also in nerve fibers. SNAP-25-LI and syntaxin-LI were predominantly present in the plasma membrane of the endocrine cells, including insulin-producing .beta. cells. In situ ***hybridization*** , using isoform-specific oligonucleotide ***probes*** , ***detected*** VAMP-2, cellubrevin, SNAP-25, syntaxin 1A, 4, and 5, and munc-18 ***mRNAs*** in isolated pancreatic islets and in insulin-producing cells. The results show the presence of several synaptic proteins at protein and ***mRNA*** levels in pancreatic islet cells, suggesting that they may have specific roles in the mol. regulation of exocytosis also in insulin-secreting cells.

L16 ANSWER 156 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:260567 CAPLUS
DN 122:97938
TI Inhibition of xenograft rejection by genetic manipulation using human CD59 ***cDNA***
AU Akami, Toshikazu
CS Second Department of Surgery, Kyoto Prefectural University of Medicine, Kyoto, 602, Japan
SO Kyoto-furitsu Ika Daigaku Zasshi (1994), 103(9), 971-86 CODEN: KFIZAO; ISSN: 0023-6012
DT Journal
LA English
AB The potential utility of human CD59, a homologous complement inhibitor, was evaluated for prevention of complement-mediated xenogeneic tissue injury using gene manipulation. Human CD59 retained similar functional activity toward the complement of monkeys, but not toward that of nonprimates. On flow cytometric anal. and Southern blotting, using a monoclonal antibody and ***DNA*** ***probe*** for human CD59, proteins that reacted with anti-human CD59 antibody were expressed on the surfaces of human and monkey peripheral blood lymphocytes (PBL), but not on the surfaces of nonprimate PBL, and ***hybridized*** bands were also consistently ***detected*** in human and monkey ***DNA*** , but not in that from nonprimate species. To investigate the role played by the N-glycosylation site of human CD59, complement regulatory function was also compared in wild type and mutant CD59 using transfected mouse cell lines (pSR.alpha.CD59/A31 and mutant pSR.alpha.CD59/A31, which lacked N-glycosylation by site-directed mutagenesis). A 51Cr release assay after the exposure of these transfectants to dild. sera showed that mutant pSR.alpha.CD59/A31 was more resistant to human, monkey, and pig complement attack than pSR.alpha.CD59/A31. Further, in CD59 gene transfer to canine kidney by HVJ- ***liposomes*** , human CD59 was ***detected*** on glomerular cells for at least one week. These results suggest that the inhibition of xenograft rejection by human CD59 gene transfer is effective for xenotransplantation, esp. between humans and nonprimates, and that the mutant CD59 gene that codes N-glycosylation-deficient CD59 could be more effective. Gene transfer methods performed via arteries such as HVJ- ***liposome*** method, could be a useful tool for the protection of organ xenografts, since endothelial cells are the main target for gene transfer by such methods.

L16 ANSWER 157 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1995:27139 CAPLUS
DN 122:1506
TI The molecular cloning and expression of a human synaptic ***vesicle*** amine transporter that suppresses MPP+ (N-methyl-4-phenylpyridinium) toxicity
AU Liu, L.; Xu, W.; Harrington, K. A.; Emson, P. C.
CS MRC Molecular Neuroscience Group, Department of Neurobiology, The Babraham Institute, Babraham, Cambridge, CB2 4AT, UK
SO Molecular Brain Research (1994), 25(1-2), 90-6 CODEN: MBREE4; ISSN: 0169-328X
DT Journal
LA English
AB A synaptic ***vesicle*** amine transporter ***cDNA*** , termed hSVAT, has been isolated by the reverse transcription and polymerase chain reaction (PCR) technique from human substantia nigra and subsequent screening of a human substantia nigra library. The hSVAT sequence obtained is highly homologous to the rat SVAT sequence (92% homol.) and is essentially identical to the human sequence identified recently by Surratt and colleagues [33]. This labeled hSVAT ***cDNA*** ***detected*** a single band (.apprx.5.0 kb) when used as a ***probe*** for Northern anal. of human nigral ***RNA*** ext. In situ ***hybridization*** studies using hSVAT specific antisense oligonucleotides showed a strong ***hybridization*** signal concd. over the cells of the substantia nigra pars compacta. This ***cDNA*** sequence when expressed in Chinese hamster ovary (CHO) cells conferred resistance to MPP+ the toxic metabolite of MPTP (N-methyl-1,2,3,6-tetrahydropyridine) and cells contg. it accumulated dopamine.

L16 ANSWER 158 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:677850 CAPLUS
DN 121:277850
TI Membrane- ***binding*** domains and cytopathogenesis of the matrix ***protein*** of vesicular stomatitis virus
AU Ye, Zhiping; Sun, Wei; Suryanarayana, Kalachar; Justice, Peter; Robinson, Druen; Wagner, Robert R.
CS Department of Microbiology and Cancer Center, University of Virginia School of Medicine, Charlottesville, VA, 22908, USA
SO Journal of Virology (1994), 68(11), 7386-96 CODEN: JOVIAM; ISSN: 0022-538X
PB American Society for Microbiology
DT Journal
LA English
AB The membrane- ***binding*** affinity of the matrix (M) ***protein*** of vesicular stomatitis virus (VSV) was examd. by comparing the cellular distribution of wild-type (wt) virus M ***protein*** with that of temp.-sensitive (ts) and deletion mutants ***probed*** by indirect fluorescent-antibody staining and fractionation of infected or plasmid-transfected CV1 cells. The M-gene mutant tsO23 caused cytopathic rounding of cells infected at permissive temp. but not of cells at the nonpermissive temp.; wt VSV also causes rounding, which prohibits study of M ***protein*** distribution by fluorescent-antibody staining. Little or no M ***protein*** can be ***detected*** in the plasma membrane of cells infected with tsO23 at the nonpermissive temp., whereas .apprx.20% of the M ***protein*** colocalized with the membrane fraction of cells infected with tsO23 at the permissive temp. Cells transfected with a plasmid expressing intact 229-amino-acid wt M ***protein*** (M1-229) exhibited cytopathic cell rounding and actin filament dissoln., whereas cells retained normal polygonal morphol. and actin filaments when transfected with plasmids expressing M ***proteins*** truncated to the first 74 N-terminal amino acids (M1-74) or deleted of the first 50 amino acids (M51-229) or amino acids 1 to 50 and 75 to 106 (M51-74/107-229). Truncated ***proteins*** M1-74 and M51-229 were readily ***detectable*** in the plasma membrane and cytosol of transfected cells as detd. by both fluorescent-antibody staining and cell fractionation, as was the plasmid-expressed intact wt M ***protein*** . However, the expressed doubly deleted ***protein*** M51-74/107-229 could not be ***detected*** in plasma membrane by fluorescent-antibody staining or by cell fractionation, suggesting the presence of two membrane- ***binding*** sites spanning the region of amino acids 1 to 50 and amino acids 75 to 106 of the VSV M ***protein*** . These in vivo data were confirmed by an in vitro ***binding*** assay in which intact M ***protein*** and its deletion mutants were reconstituted in high- or low-ionic-strength buffers with synthetic membranes in the form of sonicated unilammelar ***vesicles*** . The results of these expts. appear to confirm the presence of two membrane- ***binding*** sites on the VSV M ***protein*** , one ***binding*** peripherally by electrostatic forces at the highly charged NH2 terminus and the other stably ***binding*** membrane integration of hydrophobic amino acids and located by a hydropathy plot between amino acids 88 and 119.

L16 ANSWER 159 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:573374 CAPLUS
DN 121:173374
TI Isolation of a rat amiloride- ***binding*** ***protein*** cDNA clone: tissue distribution and regulation of expression
AU Verity, Karen; Fuller, Peter J.
CS Prince Henry's Inst. Med. Res., Monash Med. Cent., Clayton, 3168, Australia
SO American Journal of Physiology (1994), 266(6, Pt. 1), C1505-C1512 CODEN: AJPHAP; ISSN: 0002-9513
DT Journal
LA English
AB Sodium transport across high-resistance epithelia involves both an apical amiloride-sensitive sodium channel and the basal Na+-K+-ATPase pump. Aldosterone regulates sodium transport by increasing the sodium permeability of the sodium channels. To study further the regulation of gene expression in sodium-transporting epithelia by corticosteroids, the authors have cloned an amiloride- ***binding*** ***protein*** (ABP) cDNA from rat descending colon and kidney. Identical 311 nucleotide cDNAs were amplified from both rat descending colon and kidney, and the predicted amino acid sequence exhibited 83% homol. to the equiv. region of the

human ***peptide*** sequence. Use of this cDNA as a ***probe*** resulted in ***detection*** of a transcript in both the small and large bowel, thymus, and seminal ***vesicle*** . The latter tissue exhibited the highest level of rat ABP expression. Low to undetectable levels of rat ABP were expressed in the descending colon and kidney. No regulation of rat ABP by either class of corticosteroids were obsd. Levels of ABP were low at birth and increased gradually to adult levels just before weaning in the bowel. The distribution of rat ABP is not as would be predicted for an aldosterone-induced gene and is thus unlikely to be a component of the amiloride-sensitive electrogenic sodium channel.

L16 ANSWER 160 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:552434 CAPLUS
DN 121:152434
TI Fusogenic mechanisms of enveloped-virus glycoproteins analyzed by a novel recombinant vaccinia virus-based assay quantitating cell fusion-dependent reporter gene activation
AU Nussbaum, Ofer; Broder, Christopher C.; Berger, Edward A.
CS Laboratory of Viral Diseases, National Inst. of allergy and Infectious Diseases, Bethesda, MD, 20892, USA
SO Journal of Virology (1994), 68(9), 5411-22 CODEN: JOVIAM; ISSN: 0022-538X
DT Journal
LA English
AB The fusogenic activities of enveloped-virus glycoproteins were analyzed by using a quant., sensitive, rapid, and highly versatile recombinant vaccinia virus-based assay measuring activation of a reporter gene upon fusion of two distinct cell populations. One population uniformly expressed vaccinia virus-encoded viral glycoproteins mediating specific ***binding*** and fusion activities; the other expressed the corresponding cellular receptor(s). The cytoplasm of one population also contained vaccinia virus-encoded bacteriophage T7 RNA polymerase; the cytoplasm of the other contained a transfected plasmid with the Escherichia coli lacZ gene linked to the T7 promoter. When the two populations were mixed, cell fusion resulted in activation of the LacZ gene in the cytoplasm of the fused cells; .beta.-galactosidase activity was assessed by colorimetric assay of detergent cell lysates or by in situ staining. The authors applied this approach to study the human immunodeficiency virus type 1 envelope glycoprotein (Env)-CD4 interaction. .beta.-Galactosidase was ***detected*** within 1 h after cell mixing and accumulated over the next several hours. Cell fusion dependence was demonstrated by the strict requirement for both CD4 and functional Env expression and by the inhibitory effects of known fusion-blocking monoclonal antibodies and pharmacol. agents. Quant. measurements indicated much higher sensitivity compared with anal. of syncytium formation. The assay was used to ***probe*** mechanisms of the cell type specificity for Env-CD4-mediated fusion. In agreement with known restrictions, cell fusion occurred only when CD4 was expressed on a human cell type. Membrane ***vesicle*** transfer expts. indicated that CD4 initially produced in either human or nonhuman cells was functional when delivered to human cells, suggesting that the fusion deficiency with nonhuman cells was not assocd. with irreversible defects in CD4. The authors also demonstrated that the infectivity specificities of different human immunodeficiency virus type 1 isolates for peripheral blood lymphocytes vs. continuous CD4+ cell lines were assocd. with corresponding fusion selectivities of the resp. recombinant Env ***proteins*** . The assay enabled anal. of the corresponding fusion selectivities of the resp. recombinant Env ***proteins*** . The assay enabled anal. of the fusogenic activity of the fusion glycoprotein/hemagglutinin-neuraminidase of the paramyxovirus simian virus 5. This system provides a powerful tool to study fusion mechanisms mediated by enveloped-virus glycoproteins, as well as to screen fusion-blocking antibodies and pharmacol. agents.

L16 ANSWER 161 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:551450 CAPLUS
DN 121:151450
TI Clathrin assembly ***protein*** AP-3 is phosphorylated and glycosylated on the 50-kDa structural domain
AU Murphy, Jo-Ellen; Hanover, John A.; Froehlich, Monica; DuBois, Garrett; Keen, James H.
CS Lab. Biochem. and Metabolism, NIDDKD, Bethesda, MD, 20892, USA
SO Journal of Biological Chemistry (1994), 269(33), 21346-52 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB AP-3 (AP180) in rat sympathetic neurons maintained in culture was analyzed by pulse-chase labeling with [35S]methionine to look for the post-translational modifications. At early times, two lower mol. wt. precursors of the mature species were ***detected*** . By 10 min, all of the AP-3 was found in the mature form which is stable for at least 9 h. The authors show here that at least one of these processing events is due to the addn. of O-linked N-acetylglucosamine (GlcNAc) which is present on the mature form of the ***protein*** . Wheat germ agglutinin, a Glc-NAc-specific ***probe*** , bound to AP-3 and the ***binding*** was blocked by excess GlcNAc but not by excess mannose. Purified AP-3, and AP-3 in coated ***vesicles*** derived from bovine brain, served as substrates for .beta.-D-galactosyltransferase which is specific for terminal GlcNAc residues. Anal. of the disaccharide released by .beta.-elimination indicated that single GlcNAc residues are attached to AP-3 through an O-glycosidic linkage to threonine or serine residues. In vivo 32P-labeled AP-3, the result of serine phosphorylation (Keen, J. H., and Black, M. M. (1986) J. Cell Biol. 102, 1325-1333), bound to wheat germ agglutinin-Sepharose indicating that phosphorylation and glycosylation can occur simultaneously on the same mol. Both modifications have been mapped to the central 50-kDa structural domain that is responsible for the anomalous migration of AP-3. Consistent with localization to the nonclathrin ***binding*** domain, the O-GlcNAc modification does not play a discernible role in the interaction of AP-3 with clathrin.

L16 ANSWER 162 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:502346 CAPLUS
DN 121:102346

TI Renal cortical basolateral Na+/HCO3- cotransporter: II. ***Detection*** on conformational changes with fluorescein isothiocyanate labeling
AU Stim, J.; Bernardo, A. A.; Kear, F. T.; Qui, Y. Y.; Arruda, J. A. L.
CS Sect. Nephrology, Univ. Illinois, Chicago, IL, 60612-7315, USA
SO Journal of Membrane Biology (1994), 140(1), 39-46 CODEN: JMBBBO; ISSN: 0022-2631
DT Journal
LA English
AB Fluorescein isothiocyanate (FITC) fluorescently labels amino groups and has been useful in ***detecting*** conformational changes in transport ***proteins*** through quenching or enhancement of the fluorescence signal upon exposure of ***protein*** to substrates. Solubilized renal basolateral membrane ***proteins*** , enriched in Na+/HCO3- cotransporter activity, were reconstituted into ***liposomes*** and treated with FITC or its nonfluorescent analog PITC (Ph isothiocyanate). In the absence of Na+ and HCO3-, incubation of proteoliposomes with PITC or FITC significantly inhibited cotransporter activity. However, in the presence of Na+ and HCO3- during labeling both agents failed to inhibit cotransporter activity, including that these ***probes*** interact specifically with the cotransporter. In the presence of the substrates Na+ and HCO3- PITC ***binds*** covalently to amino groups unprotected by substrates leaving the Na+/HCO3- cotransporter available for specific labeling with FITC. Addn. of NaHCO3 to FITC-labeled proteoliposomes resulted in a concn.-dependent enhancement of the fluorescence signal which was inhibited by pretreatment with 4,4'-diisothiocyanostilbene 2'2,-disulfonic acid (DIDS) prior to FITC labeling. SDS-PAGE anal. of FITC-treated proteoliposomes showed the presence of two distinct fluorescent bands (approx. MW or 90 and 50 kDa). In the presence of substrates, the fluorescence intensity of these bands was enhanced as confirmed by direct measurement of gel slice fluorescence. Thus, FITC ***detects*** conformational changes of the Na+/HCO3- cotransporter and labels ***proteins*** which may represent the cotransporter or components of this cotransporter.

L16 ANSWER 163 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:268118 CAPLUS
DN 120:268118
TI Subcellular localization and translocation of the receptor for N-formylmethionyl-leucyl-phenylalanine in human neutrophils
AU Sengeloev, Henrik; Boulay, Francois; Kjeldsen, Lars; Borregaard, Niels
CS Dep. Hematol., State Univ. Hosp., Copenhagen, DK-2100, Den.
SO Biochemical Journal (1994), 299(2), 473-9 CODEN: BIJOAK; ISSN: 0264-6021
DT Journal
LA English
AB The subcellular localization of N-formylmethionyl-leucyl-phenylalanine (fMLP) receptors in human neutrophils was investigated. The fMLP receptor was ***detected*** with a high-affinity, photoactivatable, radioiodinated deriv. of N-formylmethyl-leucyl-phenylalalnyl-lysine (fMLFK). Neutrophils were disrupted by nitrogen cavitation and fractionated on Percoll d. gradients. FMLP receptors were located in the .beta.-band contg. gelatinase and specific granules, and the .gamma.-band contg. plasma membrane and secretory ***vesicles*** . Plasma membranes and secretory ***vesicles*** were sepd. by high-voltage free-flow electrophoresis, and secretory ***vesicles*** were demonstrated to be highly enriched in fMLP receptors. The receptors found in secretory ***vesicles*** translocated fully to the plasma membrane upon stimulation with inflammatory mediators. The receptor translocation from the .beta.-band indicated that the receptor present there was mainly located in gelatinase granules. A 25 kDa fMLP-***binding*** ***protein*** was found in the .beta.-band. Immunopptn. revealed that this ***protein*** was identical with NGAL (neutrophil gelatinase-assocd. lipocalin), a novel ***protein*** found in specific granules. In summary, the authors demonstrate that the compartment in human neutrophils that is mobilized most easily and fastest, the secretory ***vesicle*** , is a major reservoir of fMLP receptors. This explains the prompt and extensive upregulation of fMLP receptors on the neutrophil surface in response to inflammatory stimuli.

L16 ANSWER 164 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:3524 CAPLUS
DN 120:3524
TI Physical characterization of a reactivatable ***liposome*** -bound rhodanese folding intermediate
AU Zardeneta, Gustavo; Horowtiz, Paul M.
CS Health Sci. Cent., Univ. Texas, San Antonio, TX, 78284, USA
SO Biochemistry (1993), 32(50), 13941-8 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB Recently, the formation of a complex between ***liposomes*** and the unfolded ***protein*** , rhodanese (EC 2.8.1.1) (I) was described, which could be liberated and efficiently reactivated after treatment of the complex with detergents. Previous data suggested that ***liposome*** -bound I was in the form of a folding intermediate. Here, the nature of the conformation of ***liposome*** -bound I was characterized in greater detail. The phys. characterization of the ***liposome*** -bound I intermediate was carried out using proteolysis, fluorescence studies with 1,8-anilinonaphthalene-8-sulfonic acid (a ***probe*** for hydrophobic site exposure), intrinsic fluorescence to det. tryptophan accessibility using the quenchers, acrylamide and iodide, and CD to ***detect*** extent of secondary structure. These studies showed that the I intermediates bound to either cardiolipin (CL) or phosphatidylserine (PS) ***liposomes*** were not identical, the former being in a less compact conformation yet having more secondary structure than the latter, an observation which may explain why the reactivation of the former intermediate was more effective. Finally, turbidimetric and proteolytic studies raised the possibility that each I intermediate ***binds*** to several ***liposomes*** . This finding suggested that a possible reason for the differential reactivation yields obtained may be due to the

fact that unfolded I has more ***binding*** sites for CL than for PS ***liposomes*** . A greater no. of ***binding*** sites would result in better anchoring of interactive surfaces of I and thus reduce the likelihood of misfolding.

L16 ANSWER 165 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:486578 CAPLUS
DN 119:86578
TI Effects of neonatal estrogen exposure on prostatic secretory genes and their correlation with androgen receptor expression in the separate prostate lobes of the adult rat
AU Prins, Gail S.; Woodham, Carl; Lepinske, Mark; Birch, Lynn
CS Coll. Med., Univ. Illinois, Chicago, IL, 60616, USA
SO Endocrinology (1993), 132(6), 2387-98 CODEN: ENDOAO; ISSN: 0013-7227
DT Journal
LA English
AB The expression of lobe-specific, androgen-dependent, or androgen-responsive secretory genes was examd. in prostates of rats given neonatal estradiol benzoate and this was directly compared with epithelial cell androgen receptor (AR) by using histol. techniques. Sprague-Dawley rat pups were given 25 .mu.g estradiol benzoate or oil on days 1, 3, and 5 and killed on day 90. Prostatic ***mRNA*** was analyzed using Northern blots and in situ ***hybridization*** . Ventral lobe ***mRNA*** was ***hybridized*** with a prostate ***binding*** ***protein*** (PBP) ***cDNA*** ***probe*** , while lateral and dorsal ***mRNA*** were ***hybridized*** with RWB (seminal ***vesicle*** secretory ***protein*** or SVS-II), probasin, and DP1 ***cDNA*** ***probes*** . Sections adjacent to those used for in situ ***hybridization*** were stained for AR by immunocytochem. Neonatal estradiol benzoate reduced ventral lobe PBP message on Northern blots, and this was not restored with adult testosterone administration. There was a direct correlation between epithelial cell AR and PBP expression, in that PBP message and ***protein*** were only present in epithelial AR-pos. cells and were absent in all AR-neg. epithelium. In the lateral prostate, probasin expression was unaffected by neonatal estradiol benzoate, whereas RWB was slightly reduced as ***detected*** by Northern anal. By in situ ***hybridization*** , these messages were obsd. at normal levels in lateral lobe epithelial cells of estrogenized rats, which directly correlated with the presence of AR in those cells. In the dorsal prostate, different response patterns to neonatal estradiol benzoate were found for the three secretory genes analyzed. On Northern blots, DP1 message declined, probasin ***mRNA*** was modestly suppressed, and RWB expression was elevated compared to those in control tissue. In situ ***hybridization*** revealed that RWB expression in estrogenized dorsal lobes was amplified in AR-pos. epithelial cells, whereas AR-neg. cells appeared unaltered. Thus, prostatic functional activity after neonatal estradiol benzoate exposure is affected in a lobe-specific manner, which correlates with the AR imprints in the sep. lobes.

L16 ANSWER 166 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:405473 CAPLUS
DN 119:5473
TI Phosphorylcholine- ***binding*** ***proteins*** from the seminal fluids of different species share antigenic determinants with the major ***proteins*** of bovine seminal plasma
AU Leblond, E.; Desnoyers, L.; Manjunath, P.
CS Dep. Med., Univ. Montreal, Montreal, QC, Can.
SO Molecular Reproduction and Development (1993), 34(4), 443-9 CODEN: MREDEE; ISSN: 1040-452X
DT Journal
LA English
AB The major ***proteins*** of bovine seminal plasma, BSP-A1, BSP-A2, BSP-A3, and BSP-30kDa (collectively named BSP ***proteins***) ***bind*** to phospholipids contg. the phosphorylcholine (PrC) moiety. An affinity purifn. method using a p-aminophenyl phosphorylcholine-Agarose (PPC-Agarose) affinity matrix was developed for their purifn. In this study, the authors investigated the distribution of BSP-like analogs in seminal fluid of the human, porcine, hamster, mouse, and rat using this affinity matrix. Alc. ppts. of the seminal plasma/seminal ***vesicle*** secretions (SP/SVS) were further delipidated using iso-Pr ether:n-butanol (60:40). The ***protein*** prepns. obtained were solubilized in a minimal vol. of buffer A (50 mM Tris-HCl, pH 7.4, 150 mM NaCl, 5 mM EDTA, 0.02% NaN3), dialyzed against the same buffer, and applied to a PPC-Agarose column connected to a FPLC system. The unbound material was washed out and the adsorbed ***proteins*** eluted with buffer A contg. 10 mM PrC and 10M urea. The fractions were sepd. by SDS-PAGE, stained or transferred onto a nitrocellulose membrane, and ***probed*** with rabbit polyclonal anti-BSP antibodies. Anti-BSP cross-reacting ***proteins*** were ***detected*** in the seminal fluids of all the species investigated. Moreover, many of these ***proteins*** bound to the affinity matrix. The BSP ***proteins*** and their immunoreacting analogs appear to be ubiquitous in mammals and may possibly be involved in a common function such as in the modification of the lipid content of the sperm plasma membrane.

L16 ANSWER 167 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:224843 CAPLUS
DN 118:224843
TI Recognition of anthracycline ***binding*** domains in bovine serum albumin and design of a free fatty acid sensor ***protein***
AU Demant, Erland J. F.; Sehested, Maxwell
CS Dep. Biochem. C, Panum Inst., Univ. Copenhagen, Copenhagen, Den.
SO Biochimica et Biophysica Acta (1993), 1156(2), 151-60 CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English

AB The mode of ***binding*** of N-acylated doxorubicin derivs. to bovine serum albumin (BSA) has been detd. by spectrophotometric anal. A water-insol. deriv. contg. a N-hydroxysuccinimide ester moiety on the sugar amino group side-chain is found to react very rapidly with a specific domain (BSAA600) located in the NH2-terminal half of the BSA mol. A stable covalent ***protein*** -anthracycline complex with 1:1 M stoichiometry and contg. the albumin monomer is formed. This specific assocn. between albumin and doxorubicin deriv. is accompanied by large changes in the spectral characteristics of the anthracycline chromophore. A new strong absorption band at 600 nm is assocd. to ionization of the chromophore phenolic groups. Titrn. expts. indicate that the pKa of the ***protein*** bound anthracycline is about 3 pH units lower than the pKa of free doxorubicin in aq. buffer, indicating chromophore localization in a basic microenvironment on the albumin mol. For N-acylated doxorubicin derivs. which assoc. non-covalently to the BSAA600 domain, the strength of ***binding*** is found to be controlled by ionic as well as hydrophobic ***protein*** -anthracycline interactions. Water-sol. derivs. contg. a side-chain carboxylic group ***bind*** with Kd .apprx. 10.mu.M, which is at least 100-fold more strongly than doxorubicin. The anthracycline chromophore is displaced from the BSAA600 domain in a non-competitive manner by fatty acids ranging in chain length from C6 to C18 and at a fatty acid/BSA molar ratio <2. The authors therefore propose a model for the anthracycline ***binding*** domain in which the chromophore resides near the opening of the hydrophobic channel into which the fatty acid hydrocarbon chain is inserted. The clusters of basic amino acid residues located at this site may form the basic anthracycline microenvironment. These results demonstrate that doxorubicin derivs. with a sugar amino group side-chain are well suited as ***probes*** for investigations on ***protein*** -anthracycline interactions. The practical application of the covalent BSA-DOX complex as a free fatty acid sensor ***protein*** for ***detection*** of enzymic release of fatty acids in ***liposomal*** and cell membranes is suggested.

L16 ANSWER 168 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:209476 CAPLUS
DN 118:209476
TI A pea plasma membrane ***protein*** exhibiting blue light-induced phosphorylation retains photosensitivity following Triton solubilization
AU Short, Timothy W.; Reymond, Philippe; Briggs, Winslow R.
CS Plant Gene Expression Cent., Univ. California, Berkeley, CA, 94710, USA
SO Plant Physiology (1993), 101(2), 647-55 CODEN: PLPHAY; ISSN: 0032-0889
DT Journal
LA English
AB Phosphorylation of a ***polypeptide*** of approx. 120 kD in pea (Pisum sativum) plasma membranes in response to blue light was involved in phototropic curvature, but the relationship of this ***protein*** to the kinase and photoreceptor acting upon it is uncertain. Using two-phase aq. partitioning to isolate right-side-out plasma membrane ***vesicles*** , it was shown that the photoreceptor, kinase, and substrate are localized to the plasma membrane fraction. Latent phosphorylation accessible through Triton X-100 or freeze/thaw treatments of purified plasma membrane ***vesicles*** indicates that at least the kinase moiety is present on the internal face of the plasma membrane. Effects of solubilization of ***vesicles*** on fluence-response characteristics and on phosphorylation levels provide evidence that the receptor, kinase, and ***protein*** substrate are present together in individual mixed detergent micelles, either as a stable complex or as domains of a single ***polypeptide*** . In vivo blue-light irradn. results in a small but significant decrease in mobility of the 120-kD phosphorylated ***protein*** on SDS gel electrophoresis. This mobility shift is evident on Coomassie-stained gels and on Western blots ***probed*** with polyclonal antibodies raised against the 120-kD ***protein*** . Among the plasma membrane ***proteins*** bound to the reactive nucleotide analog fluorosulfonylbenzoyladenine (FSBA), a distinct ***protein*** band at 120 kD can be ***detected*** on blots ***probed*** with anti-FSBA antibodies. This band exhibits an in vivo light-dependent mobility shift identical to that obsd. for the ***protein*** band and antibodies specific for the 120-kD ***protein*** , implying that the 120-kD ***protein*** has an integral nucleotide ***binding*** site and consistent with the possibility that the substrate ***protein*** is also a kinase.

L16 ANSWER 169 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:188401 CAPLUS
DN 118:188401
TI ***Protein*** methylation in cerebellar synaptosomes
AU Wright, Lynda S.; Siegel, Frank L.
CS Med. Sch., Univ. Wisconsin, Madison, WI, USA
SO Journal of Neurochemistry (1993), 60(4), 1475-82 CODEN: JONRA9; ISSN: 0022-3042
DT Journal
LA English
AB Synaptosomes from five regions of adult rat brain were isolated, analyzed for Me acceptor ***proteins*** , and ***probed*** for methyltransferases by photoaffinity labeling. Methylated ***proteins*** of 17 and 35 kDa were obsd. in all regions, but cerebellar synaptosomes were enriched in a 21-26-kDa family of Me acceptor ***proteins*** and contained a unique major methylated ***protein*** of 52 kDa and a ***protein*** of 50 kDa, which was methylated only in the presence of EGTA. When cerebellar and liver subcellular fractions were compared, the cytosolic fractions of each tissue contained methylated ***proteins*** of 17 and 35 kDa; liver membrane fractions contained few methylated ***proteins*** , whereas cerebellar microsomes had robust methylation of the 21-26-kDa group. Differential centrifugation of lysed cerebellar synaptosomes localized the 17- and 35-kDa Me acceptor ***proteins*** to the synaptoplasm, the 21-26-kDa family to the synaptic membranes, and the 52-kDa to synaptic ***vesicles*** . The 21-26-kDa family was identified as GTP- ***binding*** ***proteins*** by [.alpha.-32P]GTP overlay assay; these ***proteins*** contained a putative methylated carboxyl cysteine, based on the presence of volatile Me esters and the inhibition of methylation by acetylfarnesylcysteine. The 52-kDa methylated ***protein*** also contained volatile Me esters, but did not ***bind*** [.alpha.-32P]GTP. When synaptosomes were screened for putative methyltransferases by S-adenosyl-L-[methyl-

3H]methionine photoaffinity labeling, a ***protein*** of 24 kDa was ***detected*** only in cerebellum, and this labeled ***protein*** was localized to synaptic membranes.

L16 ANSWER 170 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1993:74430 CAPLUS
DN 118:74430
TI Comparison of sulfur-35 and digoxigenin-labeled ***RNA*** and oligonucleotide ***probes*** for in situ ***hybridization*** : expression of ***mRNA*** of the seminal ***vesicle*** secretion protein II and androgen receptor genes in the rat prostate
AU Komminoth, P.; Merk, F. B.; Leav, I.; Wolfe, H. J.; Roth, J.
CS Sch. Med., Tufts Univ., Boston, MA, 02111, USA
SO Histochemistry (1992), 98(4), 217-28 CODEN: HCMYAL; ISSN: 0301-5564
DT Journal
LA English
AB The sensitivity of radiolabeled and digoxigenin-labeled ***RNA*** ***probes*** and synthetic oligonucleotide ***probes*** for the ***detection*** of seminal ***vesicle*** secretion protein II (SVS II) and androgen receptor (AR) ***mRNA*** was compared by in situ ***hybridization*** in paraformaldehyde-fixed cryostat sections of the rat prostate. Both genes are expressed in different amts. in the various prostatic lobes and contiguous glands. SVS II or AR ***RNA*** ***probes*** were either labeled with digoxigenin-11-UTP or [35S]UTP by in vitro transcription. A synthetic SVS II oligonucleotide ***probe*** was 3' end-labeled (tailed) with either digoxigenin-11-dUTP or [35S]dATP. ***Hybridized*** 35S-labeled ***probes*** were ***detected*** by autoradiog. and digoxigenin-labeled ***probes*** by immunohistochem. using alk. phosphatase conjugated antidigoxigenin antibody or gold-labeled antibody followed by protein A-gold and silver enhancement. Digoxigenin-labeled ***probes*** provided the same degree of sensitivity as did their 35S-labeled counterparts for the ***detection*** by in situ ***hybridization*** of weakly and strongly expressed ***mRNA*** . Using both labeling methods, the SVS II ***RNA*** ***probes*** were more sensitive than the oligonucleotide ***probes*** and background labeling of the 35S-labeled oligonucleotide ***probe*** was high. The digoxigenin method produced less background with all ***probe*** types, ***hybridization*** signals showed higher resoln. and results were obtained faster than with radiolabeled ***probes*** . The immunogold silver enhancement system provided the fastest ***detection*** of digoxigenin-labeled ***probes*** with a sensitivity and resoln. similar to that provided by alk. phosphatase anti-digoxigenin immunohistochem. It is concluded that digoxigenin ***probe*** labeling and ***detection*** provides a sensitive, reliable, and efficient alternative to radiolabeled ***probes*** for in situ ***hybridization*** of ***mRNA*** .

L16 ANSWER 171 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:608462 CAPLUS
DN 117:208462
TI Apparatus and methods for using hemozoin
IN Sammons, David W.; Nalbandian, Robert M.
PA Arizona Technology Development Corp., USA
SO PCT Int. Appl., 49 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9214149 A1 19920820 WO 1992-US819 19920131 W: AU, CA, HU, JP, KR, PL, RU RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE AU 9215330 A1 19920907 AU 1992-15330 19920131
PRAI US 1991-649689 A 19910201 US 1991-766622 A 19910926 WO 1992-US819 A 19920131
AB Hemozoin was purified from a lysate of Plasmodium falciparum. Mice were immunized i.p. with hemozoin in phosphate-buffered saline (control), hemozoin mixed with CTMO-1 monoclonal antibody to a surface component of ovarian or breast cancer, or hemozoin mixed with rabbit anti-mouse erythrocyte monoclonal antibody. Blood samples were withdrawn from the mice and examd. under a light microscope with and without polarized light. In vivo specificity was detd. by visualizing the birefringent hemozoin bound to the red cells in the blood samples. An app. for analyzing blood samples for white blood cell, red blood cell, and platelet count is also described.

L16 ANSWER 172 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:567267 CAPLUS
DN 117:167267
TI Identification of a large pre-lysosomal compartment in the pathogenic protozoon Trypanosoma cruzi
AU Soares, Maurilio J.; Souto-Padron, Thais; De Souza, Wanderley
CS Inst. Biofis. Carlos Chagas Filho, UFRJ, Rio de Janeiro, 21949, Brazil
SO Journal of Cell Science (1992), 102(1), 157-67 CODEN: JNCSAI; ISSN: 0021-9533
DT Journal
LA English
AB Epimastigote forms of the pathogenic parasite Trypanosoma cruzi were used to study the endocytic process in a protozoon. These elongated unicellular organisms are highly polarized cells: endocytosis occurs only at the anterior region through the cytosome and the flagellar pocket membrane, areas of the plasma membrane where the cell cytoskeleton, formed by sub-pellicular microtubules, is absent. When the cells were incubated at 4.degree. or 28.degree. with gold-labeled transferrin, fixed and processed for routine transmission electron microscopy the observations show that this ligand initially ***binds*** to the cytosome and the membrane lining the flagellar pocket and is subsequently ingested through a clathrin-independent receptor-mediated endocytotoxic process, with

formation of uncoated pits and ***vesicles*** . Ingested complexes are carried in uncoated ***vesicles*** to the reservosomes, large membrane-bound organelles found mostly at the posterior end of the cell. Immunocytochem. data from Lowicryl-embedded cells demonstrated that the reservosomes are acidic compartments (pH 6.0, as shown using 3-(2,4-dinitroanilino)-3'-amino-N-methyldipropylamine as a pH ***probe***) with no acid phosphatase or typical lysosome-assocd. membrane ***proteins*** (LAMP 1, LAMP 2 and lgp 120), but rich in cysteine proteinase. These data suggest that the reservosome is a pre-lysosomal compartment. Since cysteine proteinase of T. cruzi contains no phosphorylated mannose residues and the cation-independent mannose 6-phosphate receptor could not be immunocytochem. ***detected*** in the reservosomes, it is possible that lysosomal enzymes in the epimastigote forms of T. cruzi are targeted to compartments related to the endocytic pathway through a mechanism different from that which occurs in other eukaryotic cells.

L16 ANSWER 173 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:545695 CAPLUS
DN 117:145695
TI Membrane interactions of the sodium channel S4 segment and its fluorescently-labeled analogs
AU Rapaport, Doron; Danin, Michal; Gazit, Ehud; Shai, Yechiel
CS Dep. Membr. Res. Biophys., Weizmann Inst. Sci., Rehovot, 76100, Israel
SO Biochemistry (1992), 31(37), 8868-75 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB A 24-amino acid ***peptide*** corresponding to the S4 segment of the sodium channel was synthesized. To perform fluorescence energy transfer measurements and to monitor the interaction of the ***peptide*** with lipid ***vesicles*** , the ***peptide*** was selectively labeled with fluorescence ***probes*** at either its N- or C-terminal amino acids. The fluorescent emission spectra of 7-nitrobenz-2-oxa-1,3-diazol-4- yl-(NBD)-labeled analogs displayed blue shifts upon ***binding*** to small unilamellar ***vesicles*** (SUV), reflecting the relocation of the fluorescent ***probe*** to an environment of increased apolarity. The results revealed that both the N- and C-terminus of the S4 segment are located within the lipid bilayer. Titrn. of solns. contg. NBD-labeled ***peptides*** with SUV was used to generate ***binding*** isotherms, from which surface partition consts., in the range of 104 M-1, were derived. The shape of the ***binding*** isotherms as well as fluorescence energy transfer measurements suggest that aggregation of ***peptide*** monomers within the membrane readily occurs in acidic but not in zwitterionic ***vesicles*** . Furthermore, the results provide good correlation between the incidence of aggregation in phosphatidylcholine/phosphatidylserine ***vesicles*** and the ability of the ***peptides*** to permeate the ***vesicle*** 's membrane. However, a transmembrane diffusion potential had no ***detectable*** effect on the location of the ***peptide*** within the lipid bilayer or on its aggregation state. Taken together, these results provide exptl. support for a transmembrane localization of the sodium channel S4 segment as well as for its potential in forming part of the channel's lining, both properties in agreement with the propagating helix model, suggested by H. R. Guy and F. Conti (1990).

L16 ANSWER 174 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:544775 CAPLUS
DN 117:144775
TI ***Nucleic*** ***acid*** ***hybridization*** using hydrophobic ***probes***
IN Hashimoto, Koji
PA Toshiba Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 3 pp. CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI JP 04135497 A2 19920508 JP 1990-259012 19900928
PRAI JP 1990-259012 19900928
AB A method for ***detecting*** target ***nucleic*** ***acid*** sequence in a sample by ***nucleic*** ***acid*** ***hybridization*** is improved by using a hydrophobic ***probe*** . Hydrophobicity is rendered by incorporating a hydrophobic substance to the ***probe*** . After ***hybridization*** the hydrophilic hybrids can be sepd. from the non-reacted hydrophobic ***probes*** in a hydrophobic or hydrophilic soln. An FITC-labeled ***probe*** for ***detection*** of the c-myc gene was incorporated with an alkyl group (C18H37) on its phosphoric acid residue and immobilized on a ***liposome*** . At the end of ***hybridization*** the mixt. was washed with chloroform to remove the ***probes*** and the hybrids were detd. by fluorometry in an aq. soln.

L16 ANSWER 175 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:442866 CAPLUS
DN 117:42866
TI Spectroscopic studies on the interaction of calf lens membranes with crystallins
AU Liang, Jack J. N.; Li, Xiao Yan
CS Massachusetts Eye Ear Infirm., Harvard Med. Sch., Boston, MA, USA
SO Experimental Eye Research (1992), 54(5), 719-24 CODEN: EXERA6; ISSN: 0014-4835
DT Journal
LA English
AB The interaction of crystallins with lens membranes and ***liposomes*** was studied by fluorescence and CD measurements. Two extrinsic fluorescence ***probes*** ANS (1-anilino-naphthalene-8-sulfonic acid) and DPH (1,6-di-Ph, 1,3,5-hexatriene) were

used to ***detect*** the ***binding*** and to explore the ***binding*** site. The ANS fluorescence intensity is greater in membranes than in ***liposomes*** , but is reverse for DPH. Among .alpha., .beta. and .gamma.-crystallins, only .alpha.c-crystallin decreased the ANS fluorescence intensity in membranes, indicating a ***binding*** between membranes and .alpha.c-crystallin. The ***binding*** site appears to be at the polar-apolar interface in membrane ***protein*** (MIP26) and .alpha.c-crystallin. Fluorescence polarization measurements show that the lipid bilayer becomes less mobile with .alpha.c-crystallin ***binding*** . The change in the near UV CD due to the ***binding*** also indicates a decreased freedom of rotation of arom. amino acid residues either in MIP26 or in .alpha.-crystallin.

L16 ANSWER 176 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:424477 CAPLUS
DN 117:24477
TI Ontogeny of the secretory immune system: maturation of a functional polymeric immunoglobulin receptor regulated by gene expression
AU Huling, Sandra; Fournier, George R.; Feren, Anna; Chuntharapai, Anan; Jones, Albert L.
CS Cell Biol. Aging Sec., Dep. Veterans Aff. Med. Cent., San Francisco, CA, 94121, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1992), 89(10), 4260-4 CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
AB In the rat, secretion of polymeric IgA from serum into bile is dependent upon the presence of a functional polymeric Ig receptor (pIgR) that acts as a hepatocyte plasma membrane receptor for ligand ***binding*** and as a transcellular transport mol. The objective of this study was to document the developmental maturation and regulation of functionally intact rat liver pIgR. An adult pattern of IgA secretion was not ***detected*** until after day 23 postpartum (dPP), by using i.v. injected 125I-labeled dimeric IgA. Radioactive dimeric IgA was not ***detectable*** in hepatocyte transport ***vesicles*** until 21 dPP by electron microscopy autoradiog. anal. By using a rabbit polyclonal antibody against the rat secretory component domain of the pIgR, Western blot anal. demonstrated that the plasma membrane-bound pIgR levels in hepatocytes from rats aged 19-22 dPP increased 10-fold during this period. To det. whether or not this increase in membrane-bound pIgR reflected increased pIgR gene expression, Northern blots of total cellular RNA extd. from neonatal rat liver were ***probed*** with pIgR cDNA (GORF-1; Banting, G., et al., 1989). The pIgR RNA levels between 19 and 22 dPP rose >20-fold and paralleled the increased membrane-bound pIgR ***protein*** during this same interval. These data demonstrate a developmentally regulated process that controls the ontogeny of biliary dimeric IgA secretion at the termination of the 3rd week postpartum. The process appears to depend on the up-regulation of pIgR gene expression.

L16 ANSWER 177 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:145456 CAPLUS
DN 116:145456
TI ***Detection*** of genes using ***DNA*** ***probes*** labeled with hemolysin
IN Ishimori, Yoshio
PA Toshiba Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI JP 03267000 A2 19911127 JP 1990-62531 19900315
PRAI JP 1990-62531 19900315
AB A method for ***detecting*** ***DNA*** sequences in ***nucleic*** ***acid*** ***hybridization*** uses ***DNA*** ***probes*** labeled with hemolysin. The sample is then incubated with ***liposomes*** in which phospholipids or glycolipids are included as labels and these labels released from the ***liposomes*** are detd. spectrophotometrically. ***Detection*** of human hepatitis B virus (HBV) in blood samples using ***DNA*** ***probes*** labeled with melittin and ***liposomes*** contg. carboxyfluorescein was shown.

L16 ANSWER 178 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:125569 CAPLUS
DN 116:125569
TI Use of annexin-V to demonstrate the role of phosphatidylserine exposure in the maintenance of hemostatic balance by endothelial cells
AU Ravanat, Catherine; Archipoff, Gisele; Beretz, Alain; Freund, Genevieve; Cazenave, Jean Pierre; Freyssinet, Jean Marie
CS Cent. Reg. Transfus. Sang., INSERM U.311, Strasbourg, 67085, Fr.
SO Biochemical Journal (1992), 282(1), 7-13 CODEN: BIJOAK; ISSN: 0306-3275
DT Journal
LA English
AB Annexin-V (PAP-I, lipocortin-V) acts as a potent anticoagulant in vitro by ***binding*** to neg. charged phospholipids with higher affinity than vitamin K-dependent ***proteins*** , with a Kd in the 10-10M range. The purpose of the present study was to use annexin-V as a ***probe*** to assess the catalytic potential of phospholipids in pro- and anti-coagulant reactions in purified systems and at the surface of endothelial cells in culture after stimulation. Procoagulant tissue factor and anticoagulant thrombomodulin activities were compared by using specific 2-stage amidolytic assays performed with purified ***proteins*** .

Procoagulant activity was estd. by the generation of factor Xa by the factor VII(a)-tissue factor complex. Anticoagulant activity was estd. by the generation of activated ***protein*** C by either the thrombin-thrombomodulin complex or factor Xa. Annexin-V induced a decrease of 70% of thrombomodulin activity when thrombomodulin (5.4-214 nM) was reconstituted into phosphatidylcholine/phosphatidylserine (1:1, mol/mol) ***vesicles*** at 37.5 or 75 .mu.M phospholipid concn., the apparent Ki being 0.5 .mu.M at 75 .mu.M lipid. The satg. concn. of annexin-V was dependent on phospholipid concn., but was independent of the phospholipid/thrombomodulin ratio. By contrast, when thrombomodulin was not reconstituted in ***vesicles*** , annexin-V had no effect. At 2 .mu.M, annexin-V totally inhibited the generation of activated ***protein*** C by factor Xa in the presence of 75 .mu.M lipid, the satg. inhibitory concn. being dependent on phospholipid concn. At 0.1 .mu.M, annexin-V totally inhibited tissue factor activity present in crude brain thromboplastin. In the absence of stimulation, human endothelial cells in culture expressed significant thrombomodulin activity and no ***detectable*** tissue factor activity. Basal thrombomodulin activity was only slightly inhibited (<15%) by 0.5 .mu.M annexin-V. Phorbol myristate acetate (PMA) induced the expression of tissue factor activity and decreased thrombomodulin activity at the endothelial-cell surface. Annexin-V, at a concn. of 16 .mu.M, caused an 80% decrease of tissue-factor activity induced by PMA at 10 ng/mL, whereas it inhibited thrombomodulin activity by only 15% on the same stimulated cells. The results confirm that annexin-V inhibits, in vitro, procoagulant tissue-factor activity and anticoagulant activities (activation of ***protein*** C by the thrombin-thrombomodulin complex and by factor Xa), through phospholipid-dependent mechanisms. They provide evidence that phospholipid exposure occurs during activation of human endothelial cells in culture by PMA and that this exposure could be involved in the expression of tissue factor activity. However, anionic phospholipids are of restricted accessibility in the vicinity of cellular tissue factor. The difference in the inhibition of thrombomodulin activity in purified systems and on endothelial cells suggests that the thrombomodulin conformation could be different under these 2 conditions and(or) that ***vesicles*** do not reproduce the exact phospholipid environment of cellular thrombomodulin. The different extent of inhibition of tissue-factor and thrombomodulin activities on stimulated endothelial cells suggests that the cofactor environments differ for the optimal expression of these opposite cellular activities.

L16 ANSWER 179 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:54032 CAPLUS
DN 116:54032
TI Importance of phosphatidylethanolamine for association of ***protein*** kinase C and other cytoplasmic ***proteins*** with membranes
AU Bazzi, Mohammad D.; Youakim, M. Angelique; Nelsestuen, Gary L.
CS Dep. Biochem., Univ. Minnesota, St. Paul, MN, 55108, USA
SO Biochemistry (1992), 31(4), 1125-34 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB Biol. membranes exhibit an asym. distribution of phospholipids. Phosphatidylserine (PS) is an acidic phospholipid that is almost entirely on the interior face of the cell membrane, where it is important for interaction with many cellular components. A less well understood phenomenon is the asymmetry of the neutral phospholipids, where phosphatidylcholine (PC) is located primarily on exterior membranes while phosphatidylethanolamine (PE) is located primarily on interior membranes. The effect of these neutral phospholipids on ***protein*** -phospholipid assocns. was examd. using four cytoplasmic ***proteins*** that ***bind*** to membranes in a calcium-dependent manner. With membranes contg. PS at a charge d. characteristic of cytosolic membranes, ***protein*** kinase C and three other ***proteins*** with mol. masses of 64, 32, and 22 kDa all showed great selectivity for membranes contg. PE rather than PC as the neutral phospholipid; the calcium requirements for membrane- ***protein*** assocn. of the 64- and 32-kDa ***proteins*** were about 10-fold lower with membranes contg. PE; ***binding*** of the 22-kDa ***protein*** to membranes required the presence of PE and could not even be ***detected*** with membranes contg. PC. Variation of the PS/PE ratio showed that membranes contg. about 20% PS/60% PE provided optimum conditions for ***binding*** and were as effective as membranes composed of 100% PS. Thus, PE, as a phospholipid matrix, eliminated the need for membranes with high charge d. and/or reduced the calcium concns. needed for ***protein*** -membrane assocn. A surprising result was that ***protein*** kinase C and the 64- and 32-kDa ***proteins*** were capable of ***binding*** to neutral membranes composed entirely of PE/PC or PC only. The different phospholipid headgroups altered only the calcium required for membrane- ***protein*** assocn. For example, calcium concns. at the midpoint for assocn. of the 64-kDa ***protein*** with membranes contg. PS, PE/PC, or PC occurred at 6, 10, and 20,000 .mu.M, resp. Thus, biol. ***probes*** ***detected*** major differences in the surface properties of membranes contg. PE vs. PC, despite the fact that both of these neutral phospholipids are often thought to provide inert matrixes for the acidic phospholipids. The selectivity for membranes contg. PE could be a general phenomenon that is applicable to many cytoplasmic ***proteins*** . The present study suggested that the strategic location of PE on the interior of the membranes may be necessary to allow some membrane- ***protein*** assocns. to occur at physiol. levels of calcium and PS.

L16 ANSWER 180 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:38532 CAPLUS
DN 116:38532
TI Post-transcriptional regulation of secretory protein production during the development of the guinea pig seminal ***vesicle***
AU Norvitch, Mary; Harvey, Scott; Hagstrom, James; Toft, Jane; Wieben, Eric
CS Dep. Biochem. Mol. Biol., Mayo Clin./Found., Rochester, MN, 55905, USA
SO Biology of Reproduction (1991), 45(6), 797-803 CODEN: BIREBV; ISSN: 0006-3363
DT Journal
LA English
AB To investigate the influence of androgens on secretory protein expression during the development of the guinea pig seminal ***vesicle*** epithelium, the patterns of ***mRNA*** and protein accumulation were examd. during the first 2 wk after birth.

Hybridization of total seminal ***vesicle*** ***RNA*** to ***cDNA*** ***probes*** revealed that the secretory protein genes were active as early as 5 days after birth. However, the accumulation of secretory proteins was barely ***detectable*** between Days 5 and 10, and could not be enhanced by treatment of neonatal animals with exogenous androgens. Secretory protein ***mRNA*** and protein levels both increased rapidly between Days 10 and 15. However, the 800-fold rise in protein levels between Days 5 and 15 greatly exceeded the magnitude of the increase in secretory protein ***mRNA*** that occurred during this interval. These data indicate that the rate of secretory protein accumulation in the guinea pig seminal ***vesicle*** is not detd. strictly by the availability of secretory protein ***mRNA*** , and suggest that post-transcriptional mechanisms may contribute to the regulation of secretory protein accumulation in neonatal guinea pigs.

L16 ANSWER 181 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:3169 CAPLUS
DN 116:3169
TI Isolation and characterization of purified sarcoplasmic reticulum membranes from isolated adult rat ventricular myocytes
AU Wientzek, Monika; Katz, Sidney
CS Fac. Pharm. Sci., Univ. British Columbia, Vancouver, BC, V6T 1Z3, Can.
SO Journal of Molecular and Cellular Cardiology (1991), 23(10), 1149-63 CODEN: JMCDAY; ISSN: 0022-2828
DT Journal
LA English
AB Demonstrated for the 1st time is the isolation of sarcoplasmic reticulum (SR) membranes from adult rat ventricular myocytes obtained from a single rat heart. The myocyte SR prepn. exhibits similar Ca2+-transport and Ca2+/K+-ATPase activity as well as a similar ***protein*** profile to SR membrane isolated from intact rat heart tissue. This SR prepn. exhibited a Ca2+/K+-ATPase activity of 371 .+-. 55 nmol/min/mg ***protein*** and an oxalate-stimulated Ca2+-uptake activity of 103 .+-. 4 nmol/min/mg ***protein*** . Pretreatment of the SR ***vesicles*** with 5 .mu.M ruthenium red increased the oxalate-stimulated Ca2+-uptake to 204 .+-. 12 nmol/min/mg ***protein*** demonstrating the presence of junctional SR membranes. SDS-PAGE shows that the isolated SR membranes contained ***protein*** bands at 430 (Ca2+-release channel), 100 (Ca2+/K+-ATPase), 55 (calsequestrin and/or calreticulin), and 53 kDa (glycoprotein). Western blots of myocyte SR membranes stained with ruthenium red ***detected*** 2 major Ca2+- ***binding*** ***protein*** bands in this prepn. at 53-55 kDa (calsequestrin and/or calreticulin) and 97-100 kDa (Ca2+/K+-ATPase). The presence of phospholamban, a regulatory ***protein*** of the Ca2+/K+-ATPase of cardiac SR, was confirmed in the myocyte SR membranes by Western blots ***probed*** with a monoclonal antibody to phospholamban. Isoproterenol stimulation of intact [32P]orthophosphate-equilibrated myocytes was assocd. with an increase in the phosphorylation of 3 distinct ***proteins*** (27, 31, and 152 kDa) in myocyte homogenates. The 27-kDa phosphorylated ***protein*** was identified in purified SR membranes as phospholamban by migration on electrophoretic gels and by immunoblotting. The ability to prep. SR membranes from intact isolated adult rat ventricular myocytes makes this system a potentially useful model for the study of SR regulation by ***protein*** phosphorylation.

L16 ANSWER 182 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1992:2413 CAPLUS
DN 116:2413
TI Study on the translocation of mitochondrial precursor ***protein*** across model membranes - the interaction between Candida krusei apocytochrome c and non-bilayer lipid phosphatidylethanolamine (PE)
AU Wang, Xianshu; Li, Nanxin; Yang, Fuyu
CS Inst. Biophys., Acad. Sin., Beijing, 100080, Peop. Rep. China
SO Progress in Natural Science (1991), 1(2), 160-4 CODEN: PNASEA; ISSN: 1002-0071
DT Journal
LA English
AB The import rate of C. krusei apocytochrome c across three types of ***liposomes*** [50%(PS)-50%(PC) (a), 50%PS-12.5%PE-37.5%PC (b) and 50%PS-25%PE-25%PC (c), where PS = phosphatidylserine, PC = phosphatidylcholine, and PE = phosphatidylethanolamine] follows the order: c > b > a. This may indicate that the import rate increases with increasing content of non-bilayer lipid PE in ***vesicles*** despite the same ***binding*** ability of apocytochrome c to these ***liposomes*** . The lipid fluidity of ***liposomes*** a, b and c measured before or following insertion of apocytochrome c by means of a fluorescent ***probe*** , 9-(9-anthroyloxy)stearic acid, decreases in the order of a > b > c. Using N-(7-nitro-2-1, 3-benzoxadiazol-4- yl)dioleoylethanolamine, an induction of hexagonal phase transition can be ***detected*** in the case of ***liposomes*** (b) or (c). It is suggested that local formation of nonbilayer lipid surface could facilitate the translocation of apocytochrome c across the membrane.

L16 ANSWER 183 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:650172 CAPLUS
DN 115:250172
TI Monoclonal antibody (MHS-5) as a new ***probe*** for sexual assault analysis
IN Herr, John C.; Sigman, Mark; Sutherland, William M.
PA University of Virginia Alumni Patents Foundation, USA
SO U.S., 24 pp. Cont.-in-part of U.S. 4,741,998. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------

PI US 5047508 A 19910910 US 1987-42193 19870421 US 4741998 A 19880503 US 1985-741601 19850605 EP 222774 A1 19870527 EP 1986-900377 19851122 R: CH, DE, FR, GB, IT, LI
PRAI US 1985-741601 A2 19850605
AB Monoclonal antibody MHS-5 specifically ***binds*** to seminal ***vesicle*** -specific antigen and is useful for anal. of sexual assault. The MAb was produced by std. hybridoma techniques. When simulated sexual assault samples were tested using MHS-5, all tested pos. for semen. Of 30 samples from actual forensic case work, semen was pos. identified in 19 by ELISA. Of the 19 samples pos. for the MHS-5 antigen, spermatozoa had been microscopically confirmed in 13. Eleven samples tested neg. for MHS-5 antigen, and spermatozoa were found microscopically in 1 of these samples. The MHS-5 antigen could not be ***detected*** in human serum, saliva, vaginal ***protein*** , cervical mucous, or human milk. An ELISA was developed that gives a pos. identification of semen with .gtoreq. 0.75 ng seminal fluid ***protein*** present.

L16 ANSWER 184 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:650000 CAPLUS
DN 115:250000
TI Interaction of fluorescently labeled pardaxin and its analogs with lipid bilayers
AU Rapaport, Doron; Shai, Yechiel
CS Dep. Membr. Res. Biophys., Weizmann Inst. Sci., Rehovot, 76100, Israel
SO Journal of Biological Chemistry (1991), 266(35), 23769-75 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Fluorescence measurements were used to monitor the interaction of the neurotoxin pardaxin and its analogs with membranes. Eight ***peptides*** were selectively labeled with the fluorophore 7-nitrobenz-2-oxa-1,3-diazole-4-yl, either at their N-terminal or at their C-terminal. No ***detectable*** changes in membrane permeability or hemolytic activity were obsd. upon modification. Upon the titrn. of solns. contg. the different ***peptides*** with small unilamellar ***vesicles*** , the fluorescent emission spectra of 7-nitrobenzofurazan- labeled pardaxin and its analogs, but not those of control ***peptides*** , displayed blue shifts in addn. to enhanced intensities upon relocation of the ***probe*** to a more apolar environment. The results revealed that the N terminus of pardaxin is buried within the lipid bilayer while the C terminus is located at the bilayer's surface. ***Binding*** isotherms were obtained from the obsd. increases in the fluorescence emission yields, from which surface partition consts., in the range of 104M-1, were in turn derived. The existence of an aggregation process was suggested by the shape of the ***binding*** isotherms. Furthermore, the results show good correlation between the incidence of aggregation and the ability of the different analogs to induce the release of relatively large mols. from ***vesicles*** . These results suggest that the mechanism of pore formation employed by pardaxin and its analogs could be described by the barrel stave model.

L16 ANSWER 185 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:550365 CAPLUS
DN 115:150365
TI Method for ***detection*** and treatment of multiple drug-resistant tumor cells and useful colchicine derivative ***probes***
IN Safa, Ahmad R.
PA Reese, Michael, Hospital and Medical Center, USA
SO PCT Int. Appl., 39 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9102084 A1 19910221 WO 1990-US4440 19900808 W: AU, CA, JP RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE AU 9061796 A1 19910311 AU 1990-61796 19900808
PRAI US 1989-391155 A 19890809 WO 1990-US4440 A 19900808
OS MARPAT 115:150365
AB A method for the ***detection*** of multiple drug-resistant (MDR) tumor cells is described which comprises the admixt. of a sample of mammalian tumor cellular material with an effective ***binding*** amt. of a labeled colchicine deriv. to form a complex with any P-gp (P-glycoprotein, a 150-180 kilodalton glycoprotein produced in MDR cells in proportion to the cellular level of drug resistance) that is present, and then detg. the amt. of P-gp present by quantitating the amt. of labeled colchicine deriv. bound to P-gp. Photoaffinity and radiolabeled derivs. of colchicine and the syntheses of such derivs. are described, as are a method of treatment for MDR tumors and a diagnostic kit. Thus, N-hydroxysuccinimidyl-4-azidosalicylate was radiolabeled with Na 125I, and the product was further reacted with aminohexanoyldeacetylcolchicine trifluoroacetate to form N-(p-azido-3-[125I]salicyl)aminohexanoyldeacetylc olchicine (I). Membrane ***vesicles*** of drug-sensitive DC-3F Chinese hamster lung cells and vincristine-resistant variant (DC-3F/VCD-5L) cells (MDR cells) were photolabeled with I. The P-gp was faintly labeled in the drug-sensitive cells, whereas radiolabeling of the MDR variant was increased substantially. The photolabeling was specific for P-gp. Immunopptn. of the photolabeled membrane ***vesicles*** indicated a radiolabeled 150-180 kilodalton ***polypeptide*** identical to P-gp.

L16 ANSWER 186 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:529168 CAPLUS
DN 115:129168
TI Gene ***detection*** using ***DNA*** - ***RNA*** hybrid formation and reaction with ***liposome*** containing marker and immobilized ***nucleic*** ***acid*** -recognizing substance
IN Ishimori, Yoshio

PA Toshiba Corp., Japan
SO Eur. Pat. Appl., 14 pp. CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI EP 437092 A1 19910717 EP 1990-314249 19901224 R: DE, FR, GB, IT JP 04208858 A2 19920730
JP 1990-418246 19901225
PRAI JP 1989-332611 A 19891225
AB Genes may be ***detected*** by (1) prepg. a single-stranded gene from a sample; (2) reacting the single-stranded gene with a ***probe*** to form a ***DNA*** - ***RNA*** hybrid; (3) reacting the hybrid with a ***liposome*** contg. within it a marker substance and a substance recognizing the ***DNA*** - ***RNA*** hybrid immobilized on its surface; and (4) reacting the hybrid- ***liposome*** composite with an anti- ***nucleic*** ***acid*** antibody and complement to break the ***liposome*** , followed by ***detection*** of the released marker substance. A schematic diagram of an automatic app. for performing the method is included. Thus, a bromoacetylated dipalmitoylphosphatidylcholin e deriv. (prepn. given) was incorporated into a carboxyfluorescein-contg. ***liposome*** prepn., and Fab' fragments of a monoclonal anti- ***DNA*** - ***RNA*** hybrid antibody were immobilized on the ***liposomes*** . The ***liposomes*** were used in hepatitis B virus gene ***detection*** in serum of hepatitis patients. ***Liposomes*** using immobilized deactivated RNase H are also described.

L16 ANSWER 187 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:488117 CAPLUS
DN 115:88117
TI Extensive segregation of acidic phospholipids in membranes induced by ***protein*** kinase C and related ***proteins***
AU Bazzi, Mohammad D.; Nelsestuen, Gary L.
CS Dep. Biochem., Univ. Minnesota, St. Paul, MN, 55108, USA
SO Biochemistry (1991), 30(32), 7961-9 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB ***Protein*** kinase C (PKC) and 2 other ***proteins*** with mol. wts. of 64,000 and 32,000, purified from bovine brain, constitute a type of ***protein*** that ***binds*** a large no. of Ca2+ ions in a phospholipid-dependent manner. This study suggested that these ***proteins*** also induced extensive clustering of acidic phospholipids in the membranes. The clustering of acidic phospholipids was ***detected*** by the self-quenching of a fluorescence ***probe*** that was attached to an acidic phospholipid (phosphatidic acid or phosphatidylglyerol). The addn. of these ***proteins*** to phospholipid ***vesicles*** contg. 15% fluorescently labeled phosphatidic acid dispersed in neutral phosphatidylcholine resulted in extensive, rapid, and Ca2+-dependent quenching of the fluorescence signal. Fluorescence-quenching requirements coincided with ***protein*** -membrane ***binding*** characteristics. As expected, the addn. of these ***proteins*** to phospholipid ***vesicles*** contg. fluorescent phospholipids dispersed with large excess of acidic phospholipids produced only small fluorescence changes. In addn., assocn. of these ***proteins*** with ***vesicles*** composed of 100% fluorescent phospholipids resulted in no fluorescence quenching. ***Protein*** ***binding*** to ***vesicles*** contg. 5-50% fluorescent phospholipid showed different levels of fluorescence quenching that closely resemble the behavior expected for extensive segregation of the acidic phospholipids in the outer layer of the ***vesicles*** . Thus, the fluorescence quenching appeared to result from self-quenching of the fluorophores that become clustered upon ***protein*** -membrane ***binding*** . These results were consistent with ***protein*** -membrane ***binding*** that was maintained by Ca2+ bridges between the ***proteins*** and acidic phospholipids in the membrane. Since each ***protein*** bound .gtoreq.8 Ca2+ ions in the presence of phospholipid, they may each induce clustering of a related no. of acidic phospholipids. This property, which was very striking for this class of ***proteins*** , was barely ***detectable*** for another class of ***proteins*** that display Ca2+-dependent ***binding*** to membranes contg. acidic phospholipids. The membrane-altering behavior of PKC and other related ***proteins*** may contribute unique features to the total Ca2+ response of the cell.

L16 ANSWER 188 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:468004 CAPLUS
DN 115:68004
TI Modified bioluminescent ***proteins*** for ***detection*** , location, measurement, or visualization of substances in biological systems
IN Campbell, Anthony Keith
PA University of Wales College of Medicine, UK
SO PCT Int. Appl., 30 pp. CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI WO 9101305 A1 19910207 WO 1990-GB1131 19900723 W: AT, AU, BB, BG, BR, CA, CH, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MC, MG, MW, NL, NO, RO, SD, SE, SU, US RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, DK, ES, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG CA 2064766 AA 19910123 CA 1990-2064766 19900723 AU 9060545
A1 19910222 AU 1990-60545 19900723 EP 484369 A1 19920513 EP 1990-910819 19900723 EP 484369
B1 20011114 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE JP 05501862 T2 19930408 JP 1990-510424
19900723 JP 3375337 B2 20030210 EP 1097992 A2 20010509 EP 2000-203862 19900723 EP 1097992
A3 20010516 R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE AT 208792 E 20011115 AT 1990-910819

19900723 ES 2167307 T3 20020516 ES 1990-910819 19900723 JP 2003102491 A2 20030408 JP 2002-253527 19900723 US 5683888 A 19971104 US 1994-270314 19940705 US 6492500 B1 20021210 US 1997-957135 19971024 US 6440665 B1 20020827 US 1999-225302 19990105 US 2002151014 A1 20021017 US 2002-154801 20020528
PRAI GB 1989-16806 A 19890722 EP 1990-910819 A3 19900723 JP 1990-510424 A3 19900723 WO 1990-GB1131 A 19900723 US 1992-820867 B1 19920122 US 1994-270314 A3 19940705 US 1997-957135 A3 19971024 US 1999-225302 A3 19990105
AB Bioluminescent ***proteins*** are modified such that they take part in a bioluminescence reaction but produce light of altered characteristics (e.g. color, polarization, intensity) under different phys., chem., biochem., or biol. conditions. DNA coding for the modified bioluminescent ***protein*** may be altered to include a tissue-specific promoter or enhancer so that the DNA acts as a reporter gene. The photoprotein obelin was conjugated to an oligonucleotide specific for RNA encoding HIV cost ***protein*** . This ***probe*** was incubated with nucleic acids isolated from blood of an AIDS patient. ***Binding*** of the ***probe*** to HIV RNA resulted in a shift of light emission from 475 to 440 nm which was ***detected*** with a dual wavelength chemiluminometer.

L16 ANSWER 189 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:426640 CAPLUS
DN 115:26640
TI Postnatal expression of the canalicular bile acid transport system of rat liver
AU Novak, Donald A.; Sippel, C. Jeffrey; Ananthanarayanan, M.; Suchy, Frederick J.
CS Sch. Med., Yale Univ., New Haven, CT, 06510, USA
SO American Journal of Physiology (1991), 260(5, Pt. 1), G743-G751 CODEN: AJPHAP; ISSN: 0002-9513
DT Journal
LA English
AB Canalicular plasma membrane (CPM) ***vesicles*** prepd. by a Ca2+ pptn. method from developing (7 and 14 days old) and adult rat liver were used to directly examine the postnatal ontogenesis of taurocholate (TC) transport. The initial rate of 50 .mu.M TC uptake by ***vesicles*** derived from 14-day-old and adult but not 7-day-old animals was markedly inhibited by the anion transport inhibitor DIDS. DIDS-sensitive TC uptake was 21.6 at 14 days compared with 58.1 pmol/mg ***protein*** /5 s in adults. Kinetic studies were performed by preloading these predominantly right-side out ***vesicles*** with TC (25-800 .mu.M) and measuring the initial rate (5 s) of efflux into bile salt-free medium. Computer anal. of the DIDS-sensitive portion of efflux revealed saturable kinetics with a similar Vmax (2.72 vs. 1.97 nmol/mg ***protein*** /min) but a 3-fold higher Km (0.35 vs. 0.11 mM) in 14 day vs. adult CPM ***vesicles*** . In contrast, efflux from 7 day CPM ***vesicles*** increased linearly with increasing concns. of TC and was not inhibited by DIDS. Immunoblots of canalicular membranes, ***probed*** with an antibody against the 100-kDa bile acid transport ***protein*** , showed that the amt. of immunoreactive carrier ***protein*** in the membranes of 14-day-old and adult rats was similar but was only 37% of the adult level at 7 days of age. Moreover, the radioactivity assocd. with the 100-kDa ***protein*** , covalently labeled with [3H]H2DIDS and immunopptd. from solubilized membranes, was 28% on day 7 of that measured in adults. The ***protein*** was localized exclusively, by indirect immunofluorescence microscopy, to the canalicular domain of the neonatal hepatocyte. It is concluded that similar to the ileal brush-border membrane, the canalicular bile acid transport system is not functional in the neonate but can be ***detected*** at a much reduced level using immunochem. methods.

L16 ANSWER 190 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:181718 CAPLUS
DN 114:181718
TI Method for gene ***detection*** by ***hybridization*** - ***liposome*** immunoassay
IN Ishimori, Yoshio
PA Toshiba Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp. CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI JP 02308800 A2 19901221 JP 1989-128723 19890524
PRAI JP 1989-128723 19890524
AB The title gene ***detection*** method uses a ***hybridization*** ***probe*** and label-contg. ***liposomes*** sensitized with antibody to the double-stranded test gene. Detn. of hepatitis B virus gene with ***hybridization*** - ***liposome*** assay using a ***hybridization*** ***probe*** and carboxyfluorescin-contg. ***liposomes*** sensitized with monoclonal antibodies is cited as an example. Hepatitis B virus ***hybridization*** ***liposome*** immunoassay.

L16 ANSWER 191 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:78337 CAPLUS
DN 114:78337
TI Biological characterization of an Enterobacter cloacae outer membrane protein (OmpX)
AU Stoorvogel, Joke; Van Bussel, Mario J. A. W. M.; Van de Klundert, Jos A. M.
CS Dep. Med. Microbiol., Univ. Hosp., Leiden, 2300 RC, Neth.
SO Journal of Bacteriology (1991), 173(1), 161-7 CODEN: JOBAAY; ISSN: 0021-9193
DT Journal
LA English

AB In the work reported here, OmpX was localized in the cell envelope by means of sucrose gradient fractionation of membrane ***vesicles*** . Overprodn. of OmpX in Escherichia coli from a multicopy plasmid resulted in a redn. in the amt. of OmpF. No accumulation of OmpF, of its uncleft precursor, or of its degrdn. products could be ***detected*** in various cell fractions by Western immunoblot anal. using monoclonal antibodies produced in response to OmpF. A decrease in the rate of synthesis of ompF ***mRNA*** was indicated by a .beta.-galactosidase assay in an ompF-lacZ fusion strain contg. the cloned ompX gene and by Northern (***RNA***) blot anal. These results indicate that the inhibition is at the level of transcription. Colony ***hybridization*** , using an internal ompX fragment as a ***probe*** , showed a widespread distribution of the ompX gene among clin. isolates of members of the family Enterobacteriaceae. To study the function of the OmpX protein and its role in the regulation of porin protein synthesis, the ompX gene was deleted from E. cloacae chromosome and replaced by the aphA gene. The absence of the ompX gene had no apparent effect on cell growth or on the regulation of the porin proteins.

L16 ANSWER 192 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1991:59601 CAPLUS
DN 114:59601
TI Heat-induced alterations in monkey erythrocyte membrane phospholipid organization and skeletal ***protein*** structure and interactions
AU Kumar, A.; Gudi, S. R. P.; Gokhale, S. M.; Bhakuni, V.; Gupta, C. M.
CS Div. Membr. Biol., Cent. Drug Res. Inst., Lucknow, 226 001, India
SO Biochimica et Biophysica Acta (1990), 1030(2), 269-78 CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB Rhesus monkey erythrocytes were subjected to heating at 50.degree. for 5-15 min, and the heat-induced effects on the membrane structure were ascertained by analyzing the membrane phospholipid organization and membrane skeleton dynamics and interactions in the heated cells. Membrane skeleton dynamics and interactions were detd. by measuring the Tris-induced dissocn. of the Triton-insol. membrane skeletons (Triton shells), the spectrin-actin extractability at low ionic strength, spectrin self-assocn., and spectrin ***binding*** to normal monkey erythrocyte membrane inside-out ***vesicles*** (IOVs). The Tris-induced Triton shell dissocn. and spectrin-actin extractability were markedly decreased by the erythrocyte heating. Also, the ***binding*** of the heated erythrocyte membrane spectrin-actin with the IOVs was much smaller than that obsd. with the normal erythrocyte spectrin-actin. Further, the spectrin structure was extensively modified in the heated cells, as compared to the normal erythrocytes. Transbilayer phospholipid organization was ascertained by employing bee venom and pancreatic phospholipases A2, fluorescamine, and Merocyanine 540 as the external membrane ***probes*** . The amts. of aminophospholipids hydrolyzed by phospholipases A2 or labeled by fluorescamine in intact erythrocytes considerably increased after subjecting them to heating at 50.degree. for 15 min. Also, the fluorescent dye Merocyanine 540 readily stained the 15-min-heated cells but not the fresh erythrocytes. Unlike these findings, the extent of aminophospholipid hydrolysis in 5-min-heated cells by phospholipases A2 depended on the incubation time. Whereas no change in the membrane phospholipid organization could be ***detected*** in 10 min, prolonged incubations led to the increased aminophospholipid hydrolysis. Similarly, fluorescamine failed to ***detect*** any change in the transbilayer phospholipid distribution soon after the 5 in heating, but it labeled greater amts. of aminophospholipids in the 5-min-heated cells, as compared to normal cells, after incubating them for 4 h at 37.degree.. Evidently, both the ATP-dependent aminophospholipid pump and membrane bilayer-skeleton interactions are required to maintain the transbilayer phospholipid asymmetry in native erythrocyte membrane.

L16 ANSWER 193 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:584292 CAPLUS
DN 113:184292
TI Inhibition of expression of human immunodeficiency virus-1 in vitro by antibody-targeted ***liposomes*** containing antisense ***RNA*** to the env region
AU Renneisen, Karin; Leserman, Lee; Matthes, Eckart; Schroeder, Heinz C.; Mueller, Werner E. G.
CS Inst. Physiol. Chem., Univ. Mainz, Mainz, D-6500, Germany
SO Journal of Biological Chemistry (1990), 265(27), 16337-42 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Previous studies revealed that antisense oligodeoxynucleotides to specific regions of the human immunodeficiency virus-1 (HIV-1) are potent inhibitors of replication of HIV-1 in vitro (Zamecnik, P. C. et al., 1986). It is now reported that antisense ***RNA*** , synthesized in vitro using T7 and SP6 ***RNA*** polymerase, displayed an anti-HIV-1 effect in the HTLV-IIIB/H9 system in vitro. Treatment of HIV-1-infected H9 cells with viral env region antisense ***RNA*** encapsulated in ***liposomes*** targeted by antibodies specific for the T cell receptor mol. CD3 almost completely inhibited HIV-1 prodn. The viral env segment covered a part of exon II of the HIV-1 tat gene. No anti-HIV activity could be ***detected*** with similarly targeted ***liposome*** - encapsulated sense env ***RNA*** or with pol ***RNA*** synthesized in either the sense or antisense orientations, or with env region antisense ***RNA*** free in soln., or encapsulated in ***liposomes*** in the absence of the targeting antibody. A semiquant. evaluation revealed that 4000-7000 ***RNA*** mols. became cell-bound in targeted ***liposomes*** ; the half-life of the intracellularly present ***hybridizable*** antisense env ***RNA*** was approx. 12 h. Western blot showed that antisense env ***RNA*** suppressed tat gene expression by approx. 90% and gp160 prodn. by 100%. These data were confirmed by immunopptn. studies. Northern blots (using an env ***probe***) demonstrated the existence of all major HIV ***RNA*** species (9.3-, 4.3-, and 2.0-kb ***mRNA***) in HIV-infected cells treated with antisense env ***RNA*** although at a reduced level. Thus, the antisense env ***RNA*** inhibited viral protein prodn. at the translational level.

L16 ANSWER 194 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:493472 CAPLUS
DN 113:93472
TI ***Detection*** of the basic fibroblast growth factor low affinity ***binding*** site in cardiac sarcolemmal ***vesicles***
AU Ross, Chris R.; Hale, Calvin C.
CS Dalton Res. Cent., Univ. Missouri, Columbia, MO, 65211, USA
SO Life Sciences (1990), 46(24), 1809-15 CODEN: LIFSAK; ISSN: 0024-3205
DT Journal
LA English
AB Bovine cardiac sarcolemmal (SL) ***vesicles*** contain basic fibroblast growth factor (bFGF)- ***binding*** ***proteins*** . ***Binding*** to native SL ***vesicles*** was specific and saturable with a Kd of 6.9 nM and a Bmax of 15.2 pmoles bFGF/mg ***vesicle*** ***protein*** . With radioiodinated bFGF as a ***probe*** , autoradiog. of SL ***proteins*** subjected to SDS-PAGE and electroblotting onto nitrocellulose revealed a set of 3-4 bands, with apparent mol. wts. of 100-150 kDa. The bFGF ***binding*** to these bands was reduced by pretreatment of SL ***vesicles*** with heparinase. ***Binding*** was abolished by treatment of blot strips with heparinase or high salt concns. but not endoglycosidase F. The bFGF-***binding*** activity remained assocd. with the membrane fraction following an alk. wash, which removed peripheral membrane ***proteins*** . These data suggest that the cardiac SL contains an integral proteoglycan(s) which may be a low affinity ***binding*** /storage site of endogenous bFGF.

L16 ANSWER 195 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:475783 CAPLUS
DN 113:75783
TI Fluorescent ***detection*** of lipopolysaccharide interactions with model membranes
AU Jacobs, D. M.; Yeh, H.; Price, R. M.
CS Sch. Med. Biomed. Sci., State Univ. New York, Buffalo, NY, 14214, USA
SO Advances in Experimental Medicine and Biology (1990), 256(Endotoxin), 233-45 CODEN: AEMBAP; ISSN: 0065-2598
DT Journal
LA English
AB The crit. importance of the lipid A moiety of LPS in resistance and pathogenesis in gram neg. infections has led to the assumption that LPS interaction with target cells is due to hydrophobic interaction with plasma membranes. However, earlier results are consistent with the presence of a cell membrane structure with characteristics of a receptor. A 2-step model for LPS-membrane interaction was proposed which resolves the 2 views, and a model system was developed to control the first step (***binding*** to membrane ***protein***) and study the second step (intercalation into lipid bilayer). The interaction of LPS with small unilamellar phosphatidylcholine ***vesicles*** labeled in the hydrophobic portion of the bilayer with the fluorescent ***probe*** diphenylhexatrine (DPH) was examd. and changes were ***detected*** in the phys. properties of the bilayer by measuring DPH fluorescence anisotropy (.DELTA.r). It was found that purified, phenol-extd. Salmonella typhimurium LPS interacts with the bilayer as measured by an increase in .DELTA.r and apparently the LPS aggregate coalesced with the lipid bilayer. The greatest change in .DELTA.r was achieved with lipid A, Ra-Re glycolipids, and diphosphoryl lipid A. Monophosphoryl lipid A lipid X were less effective. Prepns. of wild-type LPS fractionated according to the length of the O-antigen side chain and unfractionated LPS had least effect on .DELTA.r. Thus, other factors such as serum components or membrane ***proteins*** may be necessary to enhance the interactions of LPS with target cells.

L16 ANSWER 196 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:455203 CAPLUS
DN 113:55203
TI Microplate ***hybridization*** of amplified viral ***DNA*** segment
AU Inouye, Sakae; Hondo, Ryo
CS Dep. Microbiol., Univ. Tokyo, Tokyo, 108, Japan
SO Journal of Clinical Microbiology (1990), 28(6), 1469-72 CODEN: JCMIDW; ISSN: 0095-1137
DT Journal
LA English
AB A simple ***hybridization*** method was developed for a ***DNA*** segment which is amplified by the polymerase chain reaction: after heat denaturation, the amplified ***DNA*** segment with a length >300 bases is adsorbed to microplate wells in the presence of 1.5M NaCl or 0.5M ammonium sulfate; the immobilized ***DNA*** is ***hybridized*** with a biotin-labeled ***DNA*** ***probe*** ; then, the ***hybridization*** signal is ***detected*** by streptavidin- conjugated .beta.-galactosidase or peroxidase. This method has several advantages over the conventional dot blot ***hybridization*** method: (1) radioisotopes are not used, (2) synthetic oligonucleotide for the ***probe*** is not needed, (3) the time required for washing of the solid phase is greatly reduced, and (4) the baking and prehybridization procedures are eliminated. By this method, it was possible to ***detect*** viral genomes in ***vesicle*** specimens from patients infected with varicella-zoster virus.

L16 ANSWER 197 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:402137 CAPLUS
DN 113:2137
TI On the nature of the structural change of the colicin E1 channel ***peptide*** necessary for its translocation-competent state
AU Merrill, A. R.; Cohen, F. S.; Cramer, W. A.
CS Dep. Biol. Sci., Purdue Univ., West Lafayette, IN, 47907, USA
SO Biochemistry (1990), 29(24), 5829-36 CODEN: BICHAW; ISSN: 0006-2960

DT Journal
LA English
AB Acidic pH conditions required in vitro for membrane ***binding*** and activity of the channel-forming colicin E1 resulted in an increased susceptibility to proteinases of the 178-residue thermolytic channel ***peptide*** , an increased accessibility to acrylamide of a fluorescence ***probe*** linked to cysteine-505 of the ***peptide*** , and an increased partition into nonionic detergent. The structural change in the ***peptide*** sensed by the fluorescence ***probe*** caused by a transition from pH 6.0 to 3.5 occurred in <1 s. The presence of low concns. of detergents (0.001% SDS or 0.44% octyl .beta.-D-glucoside) or urea (0.2M) at pH 6 or 4 also increased the susceptibility of the channel ***peptide*** to proteinases. The increase in proteinase susceptibility and acrylamide accessibility at low pH, as well as partition of the ***peptide*** into nonionic detergent, suggested that acidic pH or the detergents might cause ***peptide*** unfolding. However, the hydrodynamic radius of the channel ***peptide*** at pH 6, 21-23 .ANG., was not changed at pH 3.5 or by detergents or urea under conditions that increased the susceptibility of the ***peptide*** to proteinase. The activity of the channel ***peptide*** at pH 6 measured with ***liposomes*** and planar bilayers, which was a factor of 103-104 smaller than that at pH 4, was increased by 2-4 orders of magnitude by 0.001% SDS or 0.44% octyl .beta.-D-glucoside, with an addnl. small increment of activity on planar bilayers caused by 0.01% SDS. A small increase in Stokes radius of the ***peptide*** in the presence of SDS could be ***detected*** that was approx. correlated with increased activity.

L16 ANSWER 198 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:175063 CAPLUS
DN 112:175063
TI Chemical transduction with fluorescent lipid membranes using selective interactions of acetylcholine receptor with agonist/antagonist and acetylcholinesterase with substrate
AU Krull, Ulrich J.; Brennan, John D.; Brown, R. Stephen; Hosein, Sherina; Hougham, Bruce D.; Vandenberg, Elaine T.
CS Dep. Chem., Univ. Toronto, Mississauga, ON, L5L 1C6, Can.
SO Analyst (Cambridge, United Kingdom) (1990), 115(2), 147-53 CODEN: ANALAO; ISSN: 0003-2654
DT Journal
LA English
AB Alterations in the phys. structure of ***vesicles*** and monolayers of phospholipids and soybean lecithin were monitored by measurement of the av. fluorescence intensity changes from N-(7-nitrobenz-2-oxa-1,3-diazol-4- yl)dipalmitoyl-L-a-phosphatidylethanolamine (NBD-PE) located in the lipid matrixes. This ***probe*** was intimately dispersed at a concn. of 1-2 mol-% in lipid membranes and had an emission sensitive to local environmental structure. Alterations in the structure of soybean lecithin ***vesicles*** were induced by the selective interaction of acetylcholine receptor with the agonist carbamylcholine and the antagonist .alpha.-bungarotoxin. Structural changes in ***vesicles*** with 7:3 mol ratio of dipalmitoylphosphatiodylcholine to dipalmitoylphosphatidic acid were obsd. for selective interactions between acetylcholinesterase and acetylcholine. Enhancement of fluorescence emission from the lipid membranes provided transduction of the selective ***binding*** events of the receptor and enzyme. A max. sensitivity of about a 30% enhancement per .mu.mol of carbamylcholine and a ***detection*** limit for the toxin of 10 nM were obsd. for the receptor. Fluorescence microscopy was used to establish that ***protein*** could be incorporated in monolayer lipid membranes and to provide information about potential mechanisms of fluorescence enhancement. These studies show that lipid membranes contg. NBD-PE can be used as generic transducers of ***protein*** -ligand interactions.

L16 ANSWER 199 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:171879 CAPLUS
DN 112:171879
TI Photosensitized labeling of a functional multidrug transporter in living drug-resistant tumor cells
AU Raviv, Yossef; Pollard, Harvey B.; Bruggemann, Edward P.; Pastan, Ira; Gottesman, Michael M.
CS Lab. Cell Biol. Genet., Natl. Inst. Diabetes Dig. Kidney Dis., Bethesda, MD, 20892, USA
SO Journal of Biological Chemistry (1990), 265(7), 3975-80 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB A 170,000-Da glycoprotein (P170 multidrug transporter) becomes specifically labeled in multidrug-resistant human KB carcinoma cells by the photolabile lipophilic membrane ***probe*** 5- [125I]iodonaphthalene-1-azide ([125I]INA) when photoactivation of the ***probe*** is triggered by energy transfer from intracellular doxorubicin or rhodamine 123. In contrast, in drug-sensitive cells, drug-induced specific labeling of membrane ***proteins*** with [125I]INA was not obsd. Instead, multiple membrane ***proteins*** became labeled in a nonspecific manner. This phenomenon of drug-induced specific labeling of P170 by [125I]INA is obsd. only in living cells, but not in purified membrane ***vesicles*** or lysed cells. It is generated by doxorubicin and rhodamine 123, drugs that are chromophores and to which the cells exhibit resistance; but it is not obsd. with other drugs or dyes. Verapamil, a calcium channel blocker which reverses resistance to doxorubicin, also abolishes doxorubicin-induced specific [125I]INA labeling of P170. These results reveal that a specific interaction between P170 and doxorubicin takes place in living cells and demonstrate that P170 is directly involved in the mechanism of drug resistance in vivo. They also provide a possible means to label functional domains in the multidrug transporter. The results demonstrate that photosensitized [125I]INA labeling is a technique which provides sufficient spatial and time resoln. to ***detect*** specific intracellular interactions between chromophores and ***proteins*** in vivo.

L16 ANSWER 200 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:136470 CAPLUS
DN 112:136470
TI Developmental and differential expression of the ornithine decarboxylase gene in rodent testis

AU Alcivar, Acacia A.; Hake, Laura E.; Mali, Pekka; Kaipia, Antti; Parvinen, Martti; Hecht, Norman B.
CS Dep. Biol., Tufts Univ., Medford, MA, 02155, USA
SO Biology of Reproduction (1989), 41(6), 1133-42 CODEN: BIREBV; ISSN: 0006-3363
DT Journal
LA English
AB The expression of ornithine decarboxylase (ODCase) transcripts during testicular development was examd. by Northern blot anal. with a mouse ODCase ***cDNA*** ***probe*** . Total ***RNA*** was isolated from the testes of prepubertal mice at 6, 8, 12, 16, 18, 20, 22, and 30 days of age, from enriched populations of germinal cells obtained from the testis of immature (8 days old) and mature (45 days old) mice, and from several mouse somatic tissues. The level of the 2 ODCase transcripts (2.2 and 2.7 kilobases) was low but ***detectable*** in the testes of 6-16-day-old mice and increased substantially as the 1st spermatogenic wave proceeded into spermiogenesis. The low ODCase ***mRNA*** levels obsd. in prepubertal mouse testes were confirmed with ***RNA*** samples obtained from enriched germ cell populations of type A and type B spermatogonia and interstitial cells obtained from day 8 mouse testes. In agreement with the developmental studies, ODCase ***mRNA*** levels increased substantially in enriched populations of pachytene spermatocytes, round spermatids, and residual bodies/cytoplasts isolated from mature testes. Similar results were obtained by in situ ***hybridization*** of sections of rat testes. Reduced levels of ODCase transcripts were ***detected*** in ***RNA*** obtained from cultured mouse Sertoli cells obtained from the testes of 21-day-old mice and in ***RNA*** from liver, brain, heart, spleen, seminal ***vesicle*** , and aorta. In contrast, ODCase transcript levels from kidneys of male mice were as high as those ***detected*** in testis ***RNA*** . Substantial levels of ODCase ***mRNAs*** were also found in the epididymis. Anal. of polysome gradients prepd. from total testis exts. revealed a distribution of ODCase ***mRNA*** in both nonpolysomal and polysomal fractions of the gradient, suggesting that ODCase is translationally regulated in the mouse testis.

L16 ANSWER 201 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1990:113433 CAPLUS
DN 112:113433
TI Tissue-specific expression of two .gamma.-glutamyl transpeptidase ***mRNAs*** with alternative 5' ends encoded by a single copy gene in the rat
AU Chobert, Marie Noelle; Lahuna, Olivier; Lebargy, Francois; Kurauchi, Osamu; Darbouy, Mojtaba; Bernaudin, Jean Francis; Guellaen, Georges; Barouki, Robert; Laperche, Yannick
CS Hop. Henri Mondor, Creteil, 94010, Fr.
SO Journal of Biological Chemistry (1990), 265(4), 2352-7 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Two different ***cDNAs*** have been isolated and characterized from a rat kidney ***cDNA*** library. The 2 ***cDNA*** sequences are identical in the coding region and in the 144 bases upstream from the initiation codon but have alternate sequences (154 and 138 bases) at their 5' ends. Primer extension anal. on kidney ***mRNA*** reveals that both ***cDNAs*** are full-length and correspond to 2 ***mRNAs*** of nearly the same size (2142 and 2127 bases). Synthesis of 2 ***mRNAs*** with alternative 5' ends can be explained only by initiation at 2 sep. promoters on the single rat .gamma.-glutamyl transpeptidase (GGT) gene. The alternate 5' end nucleotide sequences were used as ***probes*** to ***detect*** the corresponding ***mRNAs*** in several rat tissues. In the kidney, the expression of both ***RNAs*** was ***detected*** by in situ ***hybridization*** in the distal part of the proximal convolutions of the renal tubule. Northern blot anal. of kidney ***mRNAs*** reveals that the expression of both ***mRNAs*** increases from birth to the adult stage. Neither of these 2 transcripts is expressed in the liver or in seminal ***vesicles*** in which a larger ***mRNA*** (2.4 kbp) is transcribed from the same gene. Thus, 2 GGT ***mRNAs*** , initiated on 2 sep. promoters on the single GGT gene, are expressed in the rat in a tissue-specific manner and coordinately regulated.

L16 ANSWER 202 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:512112 CAPLUS
DN 111:112112
TI DNA- ***binding*** ***proteins*** in cells and membrane blebs of Neisseria gonorrhoeae
AU Dorward, David W.; Garon, Claude F.
CS Lab. Pathobiol., Natl. Inst. Allergy Infect. Dis., Hamilton, MT, 59840, USA
SO Journal of Bacteriology (1989), 171(8), 4196-201 CODEN: JOBAAY; ISSN: 0021-9193
DT Journal
LA English
AB Naturally elaborated membrane bleb fractions BI and BII of N. gonorrhoeae contain both linear and circular DNAs. Because little is known about the interactions between DNA and blebs, studies were initiated to identify specific ***proteins*** that ***bind*** DNA in elaborated membrane blebs. Western immunoblots of whole-cell and bleb ***proteins*** from transformation-competent and DNA-uptake-deficient (dud) mutants were ***probed*** with single- or double-stranded gonococcal DNa, pBR322, or synthetic DNA oligomers contg. intact or altered gonococcal transformation uptake sequences. The specificity and sensitivity of a nonradioactive DNA- ***binding*** ***protein*** assay was evaluated, and the assay was used to visualize DNA- ***protein*** complexes on the blots. The complexes were then characterized by mol. mass, DNA- ***binding*** specificity, and expression in bleb fractions. The assay effectively ***detected*** blotted DNA- ***binding*** ***proteins*** . At least 17 gonococcal DNA- ***binding*** ***proteins*** were identified; unique subsets occurred in BI and BII. Certain DNA- ***binding*** ***proteins*** had varied affinities for single- and double-stranded DNA, and the intact transformation uptake sequence competitively displaced the altered sequence from a BI ***protein*** at 11 kilodaltons (kDa). A dud mutant, strain FA660, lacked

DNA- ***binding*** activity at the 11-kDa ***protein*** in BI. The segregation of DNA- ***binding*** ***proteins*** within BI and BII correlates with their distinct ***protein*** profiles and suggests that these ***vesicles*** may play different roles. Although the DNA- ***binding*** ***proteins*** expressed in BII may influence the nuclease-resistant export of plasmids within BII ***vesicles*** , the BI 11-kDa ***protein*** may ***bind*** transforming DNA.

L16 ANSWER 203 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:208014 CAPLUS
DN 110:208014
TI Interaction of nicotinic acetylcholine receptor with two monoclonal antibodies recognizing different epitopes
AU Chinchetru, Miguel A.; Marquez, Javier; Garcia-Borron, Jose C.; Richman, David P.; Martinez-Carrion, Marino
CS Sch. Basic Life Sci., Univ. Missouri, Kansas City, MO, 64110, USA
SO Biochemistry (1989), 28(10), 4222-9 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB The interactions of nicotinic acetylcholine receptor (nAChR) with 2 monoclonal antibodies (mAb370A and mAb371A) which block the agonist-induced ion flux into nicotinic acetylcholine receptor ***vesicles*** (Donnelly, D., et al., 1987) were studied by a combination of immunochem. and spectroscopic techniques. Both mAbs are specific for the .alpha.-subunit of the receptor, but they recognize different epitopes. Specific ***binding*** of mAb370A to a synthetic ***peptide*** corresponding to residues .alpha.187-205, a sequence known to contain the .alpha.-bungarotoxin- ***binding*** site, was ***detected*** . By contrast, mAb371A seems to recognize an epitope which is largely silent after proteolytic digestion of the subunit. ***Binding*** of mAb370A to the receptor is inhibited by cholinergic agonists and .alpha.-neurotoxins but not by competitive antagonists or local anesthetics. By contrast, none of these ligands interferes with ***binding*** of mAb371A. The spectroscopic properties of the fluorescent ***probe*** ethidium were used to investigate the effect of the mAbs on the interaction of the agonist carbamylcholine with nAChR in membranes. The mAb370A, but not mAb371A, blocks both the agonist-induced increase in the fluorescence intensity of receptor-bound ethidium and the agonist-induced increase in the polarization value of the ***probe*** . In addn., measurements of ethidium ***binding*** followed by stopped-flow techniques showed that mAb370A, but not mAb371A, blocked the agonist-induced assocn. of the ***probe*** to nAChR membranes. Therefore, mAb370A acts as a specific nAChR ligand which ***binds*** to an epitope which contains parts of the .alpha.-subunit sequence between residues 187-205 and competes with cholinergic ligands blocking the receptor ion channel opening response. By contrast, mAb371A acts through an, as yet, uncharacterized long-distance, noncompetitive mechanism, the latter being consistent with a conformational change of the nAChR induced by mAb371A, as reported for interactions of neuraminidase and antibodies (Colman, P. M., et al., 1987). Such conformational changes could shift the close-open channel equil. toward a closed conformation or can prevent ***protein*** movements necessary for ion channel opening.

L16 ANSWER 204 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:168647 CAPLUS
DN 110:168647
TI Interaction of clathrin coat ***proteins*** with unilamellar and multilamellar ***vesicles*** of phosphatidylcholine
AU Privat, Jean Paul; Egret-Charlier, Marguerite; Labbe, Henri; Ptak, Marius
CS Cent. Biophys. Mol., CNRS, Orleans, F-45071, Fr.
SO Biochimica et Biophysica Acta (1989), 979(2), 257-67 CODEN: BBACAQ; ISSN: 0006-3002
DT Journal
LA English
AB The ***binding*** of clathrin and accessory coat ***proteins*** to small unilamellar ***vesicles*** and to ***liposomes*** of uncharged phospholipids was followed by chromatog., 31P NMR, ESR, and fluorescence anisotropy. At pH 6.5 and at an ionic strength value (0.1M Mes) close to that used during the purifn. of clathrin-coated ***vesicles*** , the ***proteins*** do not restore the characteristic network found around the natural ***vesicles*** . Instead, a limited fusion leads to enlarged structures in which the perturbation of the dynamics of the phospholipids decreases gradually with the depth in the membrane. While the rate of motion of the outer polar heads is lowered, the order parameter of doxyl groups located either under or in the vicinity of the glycerol backbone is not affected by the ***proteins*** . In the inner core of the membrane, the main thermotropic transition of the hydrocarbon chains is unchanged. All the effects are the result of interactions limited to the membrane surface. The electrostatic nature of these interactions is evidenced when the embedded spin labels have a charge protruding at the membrane surface. An anchoring effect appears which is due to the charged groups of the ***proteins*** . The lateral diffusion of the ***probes*** is reduced and, at low ionic strength, a cationic deriv. no longer ***detects*** the thermotropic transition of the hydrocarbon chains. These results indicate that, although it is known that clathrin and accessory ***proteins*** ***bind*** to membranes by a series of ***protein*** - ***protein*** interactions, this system is not devoid of lipid- ***protein*** interactions, at least when it is not organized as in the natural system.

L16 ANSWER 205 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1989:167063 CAPLUS
DN 110:167063
TI Occurrence and distribution of gas ***vesicle*** genes among cyanobacteria
AU Damerval, Thierry; Castets, Anne Marie; Guglielmi, Gerard; Houmard, Jean; Tandeau de Marsac, Nicole
CS Dep. Biochim. Genet. Mol., Inst. Pasteur, Paris, 75724/15, Fr.
SO Journal of Bacteriology (1989), 171(3), 1445-52 CODEN: JOBAAY; ISSN: 0021-9193
DT Journal
LA English

AB Gas ***vesicles*** (GV) are specialized cell inclusions providing many aquatic prokaryotes with buoyancy. In the cyanobacterium Calothrix sp. strain PCC 7601, at least four genes are involved in GV formation. One of those, gypA1, encodes the major structural GV protein (70 amino acids) and belongs to a multigene family (gvpA1, gvpA2, gvpD). The fourth gene, gvpC, encodes a 162-amino-acid protein, the function of which is still unclear. The Calothrix gvpA1 and gvpC genes were used as ***probes*** to perform Southern ***hybridization*** expts. with ***DNA*** extd. from various cyanobacterium strains. The gvpA gene was found in all the strains that synthesize GV, indicating that its product is an obligatory component of GV. Furthermore, it was found to occur as multiple copies in most of the strains tested. The gvpC gene was only ***detected*** in some strains able to synthesize a large amt. of GV within a short period. This suggests that the gvpC gene product is a dispensable protein for GV formation and is involved in the efficiency of the assembly process. Based on the occurrence of the gvp genes and on ***DNA*** - ***DNA*** ***hybridization*** patterns, genus assignments are discussed.

L16 ANSWER 206 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:625751 CAPLUS
DN 109:225751
TI Inactivation of rubidium and sodium occlusion on sodium-potassium ATPase by modification by carboxyl groups
AU Shani-Sekler, Michal; Goldshleger, Rivka; Tal, Daniel M.; Karlish, Steven J. D.
CS Biochem. Dep., Weizmann Inst. Sci., Rehovot, 76100, Israel
SO Journal of Biological Chemistry (1988), 263(36), 19331-41 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Inactivation by N,N'-dicyclohexylcarbodiimide (DCCD) of Rb and Na occlusions in pig kidney (Na,K)-ATPase is demonstrated and characterized. Rb and Na occlusions dependent on oligomycin are measured with a manual assay. Parallel measurement of phosphorylation (by inorg. phosphate plus ouabain) and Na or Rb occlusion lead to stoichiometries of 3 Na or 2 Rb per pump mol. Inactivation of cation occlusion by DCCD shows the following features: (1) Rb and Na occlusion are inactivated with identical rates; (2) DCCD concn. dependence shows 1st-order kinetics and also proportionality to the ratio of DCCD to ***protein*** ; (3) Rb and Na occlusion are equally protected from DCCD by Rb+ with high affinity (or Na+ with lower affinity); (4) inactivation is only slightly pH-dependent between 6 and 8.5 but (5) is significantly accelerated by several hydrophobic amines, whereas a water-sol. nucleophile, glycine Et ester, has no effect; (6) inactivation is exactly correlated with inactivation of (Na,K)-ATPase activity of ATP-dependent Na/K exchange in reconstituted ***vesicles*** and with the magnitude of E1Na .fwdarw. E2(Rb) conformational transitions measured with fluorescence ***probes*** . The simplest hypothesis to explain the results is that DCCD modified one (or a small no. of) crit. carboxyl residues in a nonaq. cation ***binding*** domain and so blocks occlusion of 2 Rb+ or 3 Na+. The results suggest further that Na and K(Rb) ***bind*** to the same sites and are transported sequentially on the same trans-membrane segments. A 2nd effect of the DCCD treatment is a 4-8-fold shift of the conformational equil. E2(Rb) .fwdarw. E1Rb toward E1Rb. This is ***detected*** by (1) redn. in apparent Rb affinity for Rb occlusion or Rb/Rb exchange in ***vesicles*** and (2) direct demonstration of an increased rate of E2(K) .fwdarw. E1Na and decreased rate of E1Na .fwdarw. E2(K). This effect is not protected against by Rb+ and probably reflects modification of a 2nd group of residues. Modification of (Na,K)-ATPase by carbodiimides is complex. Depending on the nature of the carbodiimide (water- or lipid-sol.), ratio of carbodiimide to ***protein*** , and perhaps source of the enzyme, inactivation might result either from modification of crit. carboxyls, as suggested by this work, or from internal crosslinking as proposed by C. H. Pedemonte and J. H. Kaplan (1986).

L16 ANSWER 207 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:588450 CAPLUS
DN 109:188450
TI Complement ***proteins*** C5b-9 cause release of membrane ***vesicles*** from the platelet surface that are enriched in the membrane receptor for coagulation factor Va and express prothrombinase activity
AU Sims, Peter J.; Faioni, Elena M.; Wiedmer, Therese; Shattil, Sanford J.
CS Cardiovasc. Biol. Res. Program, Oklahoma Med. Res. Found., Oklahoma City, OK, 73104, USA
SO Journal of Biological Chemistry (1988), 263(34), 18205-12 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB The compn. and function of membrane microparticles released from platelets exposed to the C5b-9 ***proteins*** of the complement system were studied. Gel-filtered human platelets were incubated with sub-lytic amts. of the purified C5b-9 ***proteins*** and the distribution of surface antigens was analyzed using monoclonal antibodies and flow cytometry. C5b-9 assembly caused secretory fusion of the .alpha.-granule membrane with the plasma membrane and the release of membrane ***vesicles*** (approx. 0.1-.mu.m diam.) that contained the plasma membrane glycoproteins (GP) GP Ib and GP IIb-IIIa as well as the .alpha.-granule membrane ***protein*** GMP-140. These microparticles were highly enriched in the C6 neoantigen of the C5b-9 complex. The apparent surface d. of C5b-9 on the microparticles was approx. 103-fold higher than on the platelet itself, suggesting that the ***vesicles*** were selectively shed from the plasma membrane at the site of C5b-9 insertion. C5b-9 induced the expression of an activation-dependent epitope in GP IIb-IIIa on the platelet surface but not on the microparticles. The surface of the microparticles were also highly enriched in .alpha.-granule-derived coagulation factor V (or Va), accounting for nearly half of all the membrane-bound factor V ***detected*** . The no. of potential membrane ***binding*** sites for factor Va was ***probed*** by adding satg. concns. of factor Va light chain. Under these conditions, the d. of factor Va ***binding*** sites on the microparticle surface exceeded that on the C5b-9 treated platelet by 3 to 4 orders of magnitude. The microparticles provided most of the membrane surface for conversion of prothrombin to thrombin by VaXa. Thus, the microparticles shed by C5b-9-treated platelets (and not the platelets themselves) provide the principal ***binding*** sites for coagulation factor Va and the principle catalytic

surface for the prothrombinase complex. Platelet-derived microparticles formed during complement activation in vivo could provide a membrane surface that facilitates the assembly and dissemination of procoagulant enzyme complexes.

L16 ANSWER 208 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:109228 CAPLUS
DN 108:109228
TI Assay utilizing ATP encapsulated within ***liposome*** particles
IN Bernstein, David
PA New Horizons Diagnostics Corp., USA
SO U.S., 7 pp. CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI US 4704355 A 19871103 US 1985-716702 19850327
PRAI US 1985-716702 19850327
AB An assay for an analyte (e.g. antigen, ***DNA*** ***probe***) of a specific binding pair (ligand, antiligand) comprises (a) combining a fluid sample with a solid support sensitized with receptors for the analyte; (b) contacting the support with ATP-loaded ***liposomes*** having bound ligand, ligand analog, or antiligand; and (c) testing for the presence of ATP assocd. with the support. ATP released from the ***liposomes*** is ***detected*** by a luciferin-luciferase reagent and a luminometer. ATP-loaded ***liposomes*** were prepd. from L-.alpha.- dipalmitoylphosphatidylcholine, N-3-(2-pyridyldithiopropionyl)dipalmitoylp hosphatidylethanolamine, cholesterol, and ATP in CHCl3, Et2O, and MeOH. Fab' fragments of anti-Group A Streptococcus antibody was reacted with the ***liposomes*** which were then used in a rapid immunoassay for Group A Streptococcus. Anti-Group A Streptococcus-coupled polystyrene particles were reacted with Group A Streptococcus ext. and anti-Group A ***liposomes*** for 20 min; then the reactants were centrifuged and washed with phosphate-buffered saline. Triton buffer, luciferin-luciferase, and releasing agent were added, and light emitted was read in a luminometer.

L16 ANSWER 209 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1988:70001 CAPLUS
DN 108:70001
TI Cloning and sequence analysis of cDNA encoding p38, a major synaptic ***vesicle*** ***protein***
AU Buckley, Kathleen M.; Floor, Eric; Kelly, Regis B.
CS Sch. Med., Univ. California, San Francisco, CA, 94143-0448, USA
SO Journal of Cell Biology (1987), 105(6, Pt. 1), 2447-56 CODEN: JCLBA3; ISSN: 0021-9525
DT Journal
LA English
AB The cDNA clones encoding >95% of the open reading frame and untranslated regions of the mRNA for p38, the most abundant of the integral membrane ***proteins*** of the synaptic ***vesicle*** , were isolated from a lambda gt11 rat brain cDNA library. Phages contg. cDNA that encoded ***vesicle*** ***proteins*** were identified by screening fusion ***proteins*** with a polyclonal serum to rat brain synaptic ***vesicles*** . To identify phage carrying p38 sequences, fusion ***proteins*** were used to affinity purify monospecific antibodies from the original heterogeneous serum; antibodies to a 38,000-D ***protein*** were then identified by Western blotting. Inserts carrying DNA encoding p38 sequences were subcloned into plasmid vectors and used to generate cDNA ***probes*** for Northern blot anal. A major transcript of 2.4 kb was expressed specifically in brain and endocrine tissue but not in liver, consistent with the tissue-specific expression of the ***protein*** ***detected*** by antibody techniques. Using three overlapping clones that encoded fusion ***proteins*** , .apprx.85% of the cDNA was identified and sequenced. Two addnl. EcoRI fragments at the 5' end of the mRNA were obtained from a fourth clone identified by screening a second lambda gt11 library with a 5' cDNA ***probe*** . The cDNA encoded an open reading frame of 298 amino acids with a 3' untranslated region of 1.4 kb. The ***protein*** shares no sequence homol. with other Ca2+- ***binding*** ***proteins*** . The availability of a cDNA clone for an integral synaptic ***vesicle*** ***protein*** should facilitate studies of its function in transmitter release, its intracellular targeting, and regulation of synaptic ***vesicle*** biogenesis during development and regeneration of nerve terminals.

L16 ANSWER 210 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:595567 CAPLUS
DN 107:195567
TI Developmental expression of crystallin genes: in situ ***hybridization*** reveals a differential localization of specific ***mRNAs***
AU Van Leen, Rob W.; Breuer, Marco L.; Lubsen, Nicolette H.; Schoenmakers, John G. G.
CS Dep. Mol. Biol., Univ. Nijmegen, Nijmegen, 6525 ED, Neth.
SO Developmental Biology (Orlando, FL, United States) (1987), 123(2), 338-45 CODEN: DEBIAO; ISSN: 0012-1606
DT Journal
LA English
AB The time and place of the accumulation of .alpha.A-, .beta.B1- and .gamma.-crystallin ***RNA*** in the developing rat lens were studied by in situ ***hybridization*** . .alpha.A- and .gamma.-crystallin ***RNA*** were 1st ***detected*** in the lens ***vesicle*** , whereas .beta.B1-crystallin ***RNA*** could be seen only after elongation of the primary fiber cells. Both .beta.B1- and .gamma.-crystallin ***RNA*** were confined to the fiber cells of fetal lenses, whereas .alpha.A-crystallin ***mRNA*** could also be ***detected*** in the epithelial cells. A quantification of the ***hybridization*** pattern obtained

in the differentiation zone of the newborn rat lens showed that .alpha.A-crystallin ***RNA*** is concd. in the cortical zone. .alpha.B-crystallin ***mRNA*** has the same distribution pattern. .beta.B1-crystallin ***RNA*** was relatively poorly ***detectable*** by in situ ***hybridization*** in both fetal and newborn rat lenses. The grain densities obtained with this ***probe*** increased from the periphery of the lens toward the interior, indicating that .beta.B1-crystallin ***RNA*** accumulated during differentiation of the secondary fiber cells. A similar accumulation pattern was obtained for .gamma.-crystallin ***mRNA*** , but, unexpectedly, this ***RNA*** could also be ***detected*** in the elongating epithelial cells. Evidently, .gamma.-crystallin ***RNA*** starts to accumulate as soon as visible elongation of epithelial cells occurs, during differentiation of the primary as well as the secondary fiber cells.

L16 ANSWER 211 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:591532 CAPLUS
DN 107:191532
TI The hydrophobic tryptic core of the .beta.-adrenergic receptor retains GS regulatory activity in response to agonists and thiols
AU Rubenstein, Ronald C.; Wong, Stephen K. F.; Ross, Elliott M.
CS Southwest. Grad. Sch. Biomed. Sci., Univ. Texas, Dallas, TX, 75235, USA
SO Journal of Biological Chemistry (1987), 262(34), 16655-62 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB The function of structural domains of the .beta.-adrenergic receptor were ***probed*** by studying the ability of tryptic fragments of the receptor to catalyze the ***binding*** of guanosine-5'-O-(3- thiotriphosphate (GTP.gamma.S) to the GTP-***binding*** regulatory ***protein*** , Gs. .beta.-Adrenergic receptor purified from turkey erythrocytes was treated with trypsin under nondenaturing conditions. Such treatment decreased .beta.-adrenergic ligand ***binding*** activity by only 15-25%. Active components of the limit digest were repurified by affinity chromatog. on alprenolol-agarose and then reconstituted with purified Gs into unilamellar phospholipid ***vesicles*** . After reconstitution, the proteolyzed receptor was able to catalyze agonist-stimulated ***binding*** of GTP.gamma.S to Gs at a rate and extent equiv. to that of the nonproteolyzed receptor. The proteolyzed receptor was also partially activated on redn. by dithiothreitol, as previously reported for the intact receptor. The repurified, active tryptic digest contained 2 ***detectable*** ***peptides*** . One, of .apprx.2 .times. 104 daltons(Da), contained either 4 or 5 of the N-terminal membrane-spanning domains plus the intervening hydrophilic loops but not the N-terminal extracellular, glycosylated ***peptide*** . The 2nd, of 9000-10,000 Da, was composed essentially of the two C-terminal membrane-spanning domains and the intervening extracellular, hydrophilic loop. Thus, most of the large intracellular hydrophilic loop and the hydrophilic, C-terminal region of the receptor are not necessary for the agonist-stimulated regulation of Gs.

L16 ANSWER 212 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:530381 CAPLUS
DN 107:130381
TI Monoclonal antibodies to chromaffin cells can distinguish ***proteins*** specific to or specifically excluded from chromaffin granules
AU Pruss, R. M.
CS Lab. Cell Biol., NIMH, Bethesda, MD, 20892, USA
SO Neuroscience (Oxford, United Kingdom) (1987), 22(1), 141-7 CODEN: NRSCDN; ISSN: 0306-4522
DT Journal
LA English
AB A no. of monoclonal antibodies to chromaffin cell membranes were prepd. One of these antibodies recognizes a no. of antigenically related ***proteins*** that are present in all tissues examd. In the adrenal, these ***proteins*** are completely excluded from chromaffin granules but are present in other subcellular membrane fractions. This non-granule membrane-specific antibody has been designated NG3. A second antibody, CG7, ***binds*** to a single ***protein*** which segregates specifically into chromaffin granules. The ***protein*** recognized by CG7 is cytochrome b561, or chromomembrin B, one of the major ***protein*** components of chromaffin granule membranes. CG7 also labels a ***protein*** (the identical cytochrome b561) in bovine posterior pituitary neurosecretory ***vesicle*** membranes indicating that it functions in both peptidergic and catecholaminergic secretory granules. These two monoclonal antibodies provide useful ***probes*** of both granule and extra-granule membrane ***proteins*** for studies of membrane trafficking in chromaffin cells.

L16 ANSWER 213 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:432936 CAPLUS
DN 107:32936
TI The possible involvement of the phospholipid phase of membranes in mediating the effects of verapamil on calcium transport
AU Erdreich, Anat; Rahamimoff, Hannah
CS Hadassah Med. Sch., Hebrew Univ., Jerusalem, 91010, Israel
SO Biochemical Pharmacology (1987), 36(11), 1775-80 CODEN: BCPCA6; ISSN: 0006-2952
DT Journal
LA English
AB The effect of verapamil in a model system of A23187-induced Ca2+-uptake into ***liposomes*** was studied. This was done in order to sep. the effects of verapamil on the lipid phase of membranes from its effects on membrane ***proteins*** . In the absence of A23187, the ***liposomes*** exhibited a very low Ca2+ permeability, which did not change with addn. of verapamil. Creation of a valinomycin-induced neg.-inside membrane potential combined with increased membrane permeability to Ca2+ (A23187), increased Ca2+-entry 5-fold and more. Addn. of verapamil under these conditions led to a further increase in Ca2+ entry. The neg.

inside polarization of the ***liposome*** membrane (as estd. from [3H]TPP+ uptake) was not affected by verapamil. [3H]verapamil bound specifically to native synaptic plasma membranes with a Kd = 87.4 nM and Bmax = 2.19 pmol/mg ***protein*** . Specific ***binding*** to the ***liposomes*** could not be demonstrated. High nonspecific ***binding*** of up to about 20g of the total verapamil in the external soln. was obsd. (3.8 pmoles) [3H]verapamil/mg phospholipid when 30 nM verapamil to the ***liposomes*** had no ***detectable*** effect on the fluidity of their membrane, as seen in fluorescence-anisotropy studies with the fluorescent ***probe*** DPH.

L16 ANSWER 214 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:191488 CAPLUS
DN 106:191488
TI The effect of factor Va on lipid dynamics in mixed phospholipid ***vesicles*** as ***detected*** by steady-state and time-resolved fluorescence depolarization of diphenylhexatriene
AU Van de Waart, Piet; Visser, Antonie J. W. G.; Hemker, H. Coenraad; Lindhout, Theo
CS Biomed. Cent., Univ. Limburg, Maastricht, 6200 MD, Neth.
SO European Journal of Biochemistry (1987), 164(2), 337-43 CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
AB The thermotropic behavior of mixed dimyristoylglycerophosphoserine (Myr2GroPSer), dimyristoylglycerophosphocholine (Myr2GroPCho) and Myr2GroPSer/dipalmitoylglycerophosphocholine (Pam2GroPCho) ***vesicles*** was monitored in the presence of blood-coagulation factor Va, using 1,6-diphenyl-1,3,5-hexatriene as a lipid ***probe*** . The Ca2+-independent interaction of factor Va with these ***vesicles*** caused a small increase (1-2.degree.) in the phase transition temp., regardless of whether Myr2GroPCho was the lower or higher-melting component of the mixed ***vesicles*** . The major effect of factor Va was to increase the polarization of diphenylhexatriene when the mixed ***vesicles*** were in the liq. cryst. phase. The ***protein*** did not change the anisotropy in the bilayer gel state. The increase in the polarization value above the transition temp. closely correlated with the amt. of phospholipid-bound factor Va, as verified by a direct ***binding*** technique. In addn., the affinity of factor Va for Myr2GroPSer/Myr2GroPCho and Myr2GroPSer/Pam2GroPCho greatly increased at temps. above the transition temps. Time-dependent fluorescence anisotropy measurements of diphenylhexatriene embedded in ***vesicles*** in the liq. cryst. state give fluorescence decay curves which could best be fitted by 2 exponential functions with 2 rotational correlation times and a const. term. ***Vesicles*** composed of Myr2GroPSer exhibited more ordering than Myr2GroPCho ***vesicles*** . However, the order parameter of mixed ***vesicles*** composed of 40% Myr2GroPSer and 60% Myr2GroPCho approached that of Myr2GroPCho. Factor Va dramatically increased the longer rotational correlation time of diphenylhexatriene embedded in mixed ***vesicles*** in the liq. cryst. state from 3.7 ns to .apprx.17 ns. The 2nd rank-order parameters increased only slightly, but the calcd. steady-state anisotropy increased by 2-fold. The results indicated that the acidic phospholipid-dependent ***binding*** of factor Va to mixed ***vesicles*** has an ordering effect on the acyl chains of the acidic phospholipids in the outer layer, but leaves the bulk of the phospholipids, mainly phosphatidylcholine, unaltered. None of the factor Va-induced alterations in the anisotropy parameters pointed to the occurrence of lateral phase sepn.

L16 ANSWER 215 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:135888 CAPLUS
DN 106:135888
TI Transport of membrane-bound macromolecules by M cells in follicle-associated epithelium of rabbit Peyer's patch
AU Neutra, Marian R.; Phillips, Teresa L.; Mayer, Ellen L.; Fishkind, Douglas J.
CS Dep. Anat. Cell. Biol., Harvard Med. Sch., Boston, MA, 02115, USA
SO Cell & Tissue Research (1987), 247(3), 537-46 CODEN: CTSRCS; ISSN: 0302-766X
DT Journal
LA English
AB To det. the distribution of specific lectin- ***binding*** sites on luminal membranes of living M cells and to follow the transport route of membrane-bound mols., lectin-ferritin conjugates and cationized ferritin were applied to rabbit Peyer's patch mucosa in vivo and in vitro. The degree to which ***binding*** enhances transport was estd. by comparing quant. the transport of an adherent ***probe*** , wheat germ agglutinin (WGA)-ferritin, to that of a nonadherent bovine serum albumin-colloidal Au ***probe*** . When applied to fixed tissue, the lectins tested bound equally well to M cells and columnar absorptive cells. On living mucosa, however, ferritin conjugates of WGA and Ricinus communis agglutinins I and II bound more avidly to M cells. Absorptive cells conducted little uptake and no ***detectable*** transepithelial transport. Lectins on M cell membranes were endocytosed from coated pits, rapidly transported in a complex system of tubulocisternae and ***vesicles*** , and remained adherent to M cell basolateral membranes. Cationized ferritin adhered to anionic sites and was similarly transported, but was released as free clusters at M cell basolateral surfaces. When applied simultaneously to Peyer's patch mucosa, WGA-ferritin was transported .apprx.50-fold more efficiently than was bovine serum albumin-colloidal Au.

L16 ANSWER 216 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:115496 CAPLUS
DN 106:115496
TI Membrane penetration of bovine factor V and Va ***detected*** by labeling with 5-iodonaphthalene-1-azide
AU Lecompte, Marie France; Krishnaswamy, Sriram; Mann, Kenneth G.; Nesheim, Michael E.; Gitler, Carlos
CS Lab. Electrochim. Interfaciale, Cent. Natl. Rech. Sci., Meudon, 92195, Fr.
SO Journal of Biological Chemistry (1987), 262(5), 1935-7 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal

LA English
AB The membrane- ***binding*** properties of Factor V and Factor Va were investigated by using the lipophilic, photoactivatible ***probe*** 5-[125I]iodonaphthalene-1-azide. In the presence of ***vesicles*** composed of 75% phosphatidylcholine and 25% phosphatidylserine, both Factor V and Va were labeled by the ***probe*** . The label was almost exclusively localized to the C-terminal-derived component E of Factor Va. The results are consistent with the interpretation that component E is the membrane ***binding*** subunit of Factor Va and that the interaction between Factor V or Factor Va and the membrane involves the penetration of the ***protein*** into the lipid bilayer.

L16 ANSWER 217 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1987:46428 CAPLUS
DN 106:46428
TI Chemical modification and fluorescence labeling study of calcium-magnesium adenosine triphosphatase of sarcoplasmic reticulum using iodoacetamide and its N-substituted derivatives
AU Baba, Akiko; Nakamura, Takaaki; Kawakita, Masao
CS Coll. Arts Sci., Univ. Tokyo, Tokyo, 153, Japan
SO Journal of Biochemistry (Tokyo, Japan) (1986), 100(5), 1137-47 CODEN: JOBIAO; ISSN: 0021-924X
DT Journal
LA English
AB Sarcoplasmic reticulum membrane ***vesicles*** from rabbit skeletal muscle were treated with iodoacetamide (IAA) at pH 7.0 and 30.degree.. At 1.0 mM IAA, 1 mol IAA/mol ATPase ***peptide*** was bound in 1 h. Under these conditions, IAA was attached specifically to the B-tryptic fragment portion of the ***peptide*** . The ***binding*** of IAA did not affect the Ca2+-transporting activity of ATPase. Three fluorescent derivs. of iodoacetamide [5-(2-acetamidoethyl)aminoaphthalene- 1-sulfonate (IAEDANS), 5-iodoacetamido fluorescein (IAF), and 5-iodoacetamido eosin (IAE)] were also tested for reactivity toward sarcoplasmic reticulum ATPase at 30.degree. and pH 7.0. In 1 h at 50 .mu.m concn., each of these fluorescent labels modified ATPase to aa labeling d. of 1 mol/mol ATPase. Neither IAEDANs nor IAF at this labeling d. affected Ca2+-transporting activity, but IAE reduced transport to 20% of the untreated control. The target site of IAEDANS at this labeling d. was exclusively on the B-fragment portion, as was the case with IAA, but IAF label was found on both A1 and B fragments after limited tryptic digestion. IAEDANS was used as a B-fragment portion-directed conformational ***probe*** of Ca2+-transporting ATPase; an increase in fluorescence intensity accompanying phosphorylated enzyme-Ca complex (E1Ca-P) formation was ***detected*** . The fluorescence enhancement was abolished when E1Ca-P.cntdot.ADP.beta.S was formed by adding ADP.beta.S [adenosine 5'-O-(2-thiodiphosphate)] to preformed E1Ca-P, suggesting that the conformation of ATPase in the neighborhood of the IAEDANS ***binding*** site may be altered in response to the dissocn. of ADP from the phosphorylated intermediate.

L16 ANSWER 218 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1986:621289 CAPLUS
DN 105:221289
TI Motion and surface accessibility of spin-labeled lipids in a model lipoprotein containing cholesteryl oleate, dimyristoylphosphatidylcholine, and apolipoprotein E
AU Mims, Martha P.; Chari, Mohan V.; Morrisett, Joel D.
CS Dep. Med., Baylor Coll. Med., Houston, TX, 77030, USA
SO Biochemistry (1986), 25(23), 7494-501 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB A series of spin-labeled phosphatidylcholines (PCs) and cholesteryl esters (CEs) bearing the paramagnetic doxyl group at fatty acyl C5', C12', or C16' were used to study acyl chain motions in the polar surface shell and hydrophobic core domains of microemulsion (ME) particles contg. cholesteryl oleate (CO) and dimyristoylphosphatidylcholine (DMPC) and of particles with apolipoprotein E (apoE) bound to their surfaces. ESR data obtained with the doxyl-labeled PCs indicated a gradient of motion in the ME surface monolayer similar to that obsd. with the same ***probes*** in a bilayer. The 5- and 12-doxyl-CEs clearly demonstrated a higher degree of order for the cholesteryl ester-rich core than the corresponding doxyl-PCs showed for the phospholipid-rich surface over the entire range 10-60.degree.. The temp. dependencies of spectra of the 16-doxyl-CE in the core and PC in the surface of the ME were almost identical, suggesting that there was no sharp boundary between core and surface domains. None of the ***probes*** ***detected*** either the surface phospholipid transition (31.degree.) or the cholesteryl ester core transition (46.degree.) measured previously by DSC and 13C NMR. ***Binding*** of apoE to spin-labeled DMPC ***vesicles*** increased the order of the 5'-position of the sn-2 acyl chain over the range 15-33.degree.; the thermal transition was broadened and its midpoint elevated. The effect of ***protein*** ***binding*** was not as striking for the ME particles. In sep. studies, the rates of ascorbate-induced redn. of the nitroxyl moiety in ME labeled with either 5-doxyl-PC or 5-doxyl-CE were measured to det. the accessibility of each lipid type to the aq. phase and the core .fwdarw. surface mobility of the nonpolar lipids. Redn. of 5-doxyl-PC in the ME was monophasic; the rates were comparable to those of 5-doxyl-CE in ***vesicles*** , but much lower than those of 5-doxyl-PC in ***vesicles*** . The C5'-position of the sn-2 acyl chain of PC in the microemulsion was thus less accessible (by bulk water mols.) than was the corresponding position in the ***vesicle*** . Redn. of 5-doxyl-CE in the ME was also monophasic and dependent on ascorbate concn. at every temp. studied. Thus, CE movement from the core to the surface was more rapid than the rate of doxyl group redn. Calcns. based on these results suggested that a significantly larger fraction of CE may be present in the ME surface monolayer than in the ***vesicle*** bilayer.

L16 ANSWER 219 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1986:16746 CAPLUS

DN 104:16746
TI ***Protein*** 4.1 is involved in a structural thermotropic transition of the red blood cell membrane ***detected*** by a spin-labeled stearic acid
AU Forte, Tiziana; Leto, Thomas L.; Minetti, Maurizio; Marchesi, Vincent T.
CS Lab. Biol. Cell., Ist. Super. Sanita, Rome, Italy
SO Biochemistry (1985), 24(27), 7876-80 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB ***Proteins*** involved in a structural transition in human red blood cell membranes ***detected*** at 8.degree. by a stearic acid spin-label were investigated. Ca2+ loading of red blood cells with ionophore A 23187 caused the disappearance of the 8.degree. transition. ***Protein*** 4.1 appears to be the ***protein*** most susceptible to Ca2+ treatment. Antibodies specific for spectrin, band 3 (43,000-mol.-wt. cytoplasmic domain), and ***protein*** 4.1 were utilized as specific ***probes*** to modify membrane thermotropic properties. The 8.degree. transition was eliminated by anti-4.1 ***protein*** antibodies but was not modified by the other antibodies. To further characterize the ***protein*** (s) involved in the transition, ghosts were subjected to sequential extn. of skeletal ***proteins*** . The extn. of band 6, spectrin, and actin did not modify the 8.degree. transition. In contrast, high-salt extn. (1M KCl) of spectrin-actin-depleted ***vesicles*** , a procedure that exts. ***proteins*** 2.1 and 4.1, eliminated the 8.degree. transition. Rebinding of purified ***protein*** 4.1 to the high-salt-extd. ***vesicles*** restored the 8.degree. transition. These results indicate the involvement of ***protein*** 4.1 in the transition and suggest a functional membrane assocn. of this ***protein*** . The ***binding*** of ***protein*** 4.1 to the membrane seems to contribute significantly to the thermotropic properties of red blood cells.

L16 ANSWER 220 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1985:181082 CAPLUS
DN 102:181082
TI An immunologic ***probe*** for a defined region of the myelin proteolipid
AU Lin, Leu Fen Hou; Lees, Marjorie B.
CS Dep. Biochem., E. K. Shriver Cent., Waltham, MA, 02254, USA
SO Journal of Biological Chemistry (1985), 260(7), 4371-7 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Antiserum was prepd. against an isolated ***polypeptide*** fragment, designated BPS4, which comprises residues 181-211 of the bovine myelin proteo-lipid. The antiserum recognizes the intact bovine proteolipid ***protein*** but not several other ***polypeptide*** fragments within the mol., nor the myelin basic ***protein*** , thus demonstrating specificity of the antiserum. In a competitive ELISA, both the major proteolipid and the DM 20 bands obsd. on SDS-polyacrylamide gels reacted equally well with the antiserum, indicating that the BPS4 segment is present in both mol. species. The rat myelin proteolipid ***protein*** cross-reacted with antiserum against the intact bovine ***protein*** but showed minimal cross-reactivity with the antiserum against the bovine BPS4 fragment. The difference between the bovine and rat ***proteins*** , which presumably reflects amino acid sequence differences, is thus ***detectable*** by the antiserum against the ***polypeptide*** fragment but not by the antiserum against the intact ***protein*** . Isolated bovine myelin membranes did not ***bind*** the antiserum in the absence of detergent or without delipidation. On the other hand, in ***vesicles*** reconstituted with the intact bovine apoprotein, the BPS4 segment was oriented on the exterior face of the ***liposome*** where it was capable of ***binding*** antibody and was susceptible to Pronase digestion.

L16 ANSWER 221 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:604920 CAPLUS
DN 101:204920
TI Inability of anti-epidermal growth factor receptor monoclonal antibody to block "autocrine" growth stimulation in transforming growth factor-secreting melanoma cells
AU Kudlow, Jeffrey E.; Khosravi, Mohammed J.; Kobrin, Michael S.; Mak, William W.
CS Banting Inst., Univ. Toronto, Toronto, ON, M5G 1L5, Can.
SO Journal of Biological Chemistry (1984), 259(19), 11895-900 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB Mouse monoclonal antibodies to the human EGF [62229-50-9] receptor were raised by immunizing with plasma membrane ***vesicles*** prepd. from A431 cells. One of the IgG anti-receptor monoclonal antibodies generated was characterized and its use to ***probe*** the role of transforming growth factor (TGF) in the autonomous growth of a melanoma cell line in culture was examd. This antibody blocks: (1) the ***binding*** of 125I-labeled EGF to the A431 EGF receptor; (2) the EGF stimulation of the EGF-dependent ***protein*** kinase [9026-43-1] in vitro; and (3) human fibroblast DNA synthesis and proliferation in culture. It can ppt. the EGF receptor from metabolically labeled A431 cells and human fibroblasts and these receptors have indistinguishable ***peptide*** maps. No EGF receptor could be ***detected*** by immunopptn. after fibroblasts were treated with EGF or conditioned medium from the melanoma cells which secrete EGF-like TGF (.alpha.TGF). The antibody itself did not down-regulate the receptor but could block down-regulation caused by EGF and .alpha.-TGF. Despite its ability to block EGF-stimulated growth and down-regulation in fibroblasts, the antibody was unable to block the growth and soft agar colony formation of .alpha.TGF-secreting melanoma cells, nor could the antibody ***detect*** EGF receptor in these cells under the conditions developed to prevent down-regulation and lysosomal degrdn. of the EGF receptor. Apparently, these melanoma cells do not have the intact EGF receptor and the secretion of .alpha.TGF by these cells plays no role in their growth in culture.

L16 ANSWER 222 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:525342 CAPLUS
DN 101:125342
TI Sidedness of native membrane ***vesicles*** of Escherichia coli and orientation of the reconstituted lactose:proton carrier
AU Seckler, Robert; Wright, J. Keith
CS Max-Planck-Inst. Biol., Tuebingen, D-7400, Fed. Rep. Ger.
SO European Journal of Biochemistry (1984), 142(2), 269-79 CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
AB The orientation of the lactose-H+ carrier E. coli in various prepns. of native and reconstituted ***vesicles*** is detd. with 2 impermeant, macromol. ***probes*** : antibodies directed against the C-terminal decapeptide of the carrier and carboxypeptidase A (EC 3.4.17.1). Two methods are employed. Method I is based upon the digestion of all accessible and, therefore, presumably external, C-termini of the carrier with carboxypeptidase A and ***detection*** of the remaining, internal C-termini with 125I-labeled anti-(C-terminus) antibody after electrophoresis of the carrier in the presence of SDS and transfer to nitrocellulose filters. Method II is based on the ***binding*** of 125I-labeled anti-(C-terminus) antibody to the external C-termini of the carrier in ***vesicles*** and the subsequent isolation of bound antibody by centrifugation. The labeled antibodies are calibrated by using a prepn. of inside-out ***vesicles*** prepd. by high-pressure lysis of strain T206. The carrier content is detd. by substrate ***binding*** . Because the C-terminus of the carrier is known to reside on the cytoplasmic side of the membrane, these methods can also be used to det. the sidedness of various prepns. of membrane ***vesicles*** . Spheroplasts are confirmed to contain carrier mols. of a single orientation, corresponding to that in right-side-out ***vesicles*** . In contrast, in purified cytoplasmic membrane ***vesicles*** and in crude membrane prepns. obtained by sonication or by high-pressure lysis, 96% of the C-termini are accessible to carboxypeptidase A, even after repeated sonication. This implies that nearly all carrier mols. in these prepns. possess an orientation opposite to that in the cell or in right-side-out ***vesicles*** . In proteoliposomes contg. carrier reconstituted or purified and reconstituted by 2 different methods, only 48% of the carrier mols. are oriented in the same way as in the cell. Subjecting such proteoliposomes to freezing-thawing cycles or to sonication results in a reshuffling of carrier mols. between the inside-out and right-side-out populations while maintaining 41% in the right-side-out orientation. Digestion of the C-terminus of the carrier with carboxypeptidase A does not alter either galactoside ***binding*** or countertransport. Thus, carrier mols. of the inside-out orientation cannot be selectively inactivated. Addnl., an antiserum directed against the purified carrier is demonstrated to contain nearly exclusively anti-(C-terminus) antibodies, which can, in principle, be used in method I. Modification of method II permits the detn. of carrier levels in ***vesicles*** prepd. from cells by high-pressure lysis with as little as 0.1 pmol of carrier to an accuracy of 30-35%. The functional symmetry of certain aspects of carrier-catalyzed facilitated diffusion and active transport is discussed in the context of the nonpreferential, bimodal insertion of the carrier into proteoliposomes.

L16 ANSWER 223 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1984:486901 CAPLUS
DN 101:86901
TI Oncogenic ***detection***
IN Cline, Martin J.; Stamon, Dennis J.
PA University of California, USA
SO Eur. Pat. Appl., 43 pp. CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------- ---- -------- ---------- --------
PI EP 108564 A1 19840516 EP 1983-306548 19831027 EP 108564 B1 19880504 R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE CA 1252046 A1 19890404 CA 1983-439666 19831025 AU 8320650 A1 19840510 AU 1983-20650 19831027 AU 559912 B2 19870326 AT 34045 E 19880515 AT 1983-306548 19831027 IL 70067 A1 19890815 IL 1983-70067 19831027 FI 8303952 A 19840505 FI 1983-3952 19831028 FI 79411 B 19890831 DK 8304980 A 19840505 DK 1983-4980 19831031 NO 8304014 A 19840507 NO 1983-4014 19831103 NO 163986 B 19900507 NO 163986 C 19900815 ES 526991 A1 19870301 ES 1983-526991 19831103 BR 8306175 A 19840612 BR 1983-6175 19831104 JP 59113898 A2 19840630 JP 1983-207345 19831104 JP 07028759 B4 19950405 ES 533105 A1 19851001 ES 1984-533105 19840604 US 4699877 A 19871013 US 1984-673469 19841120 US 35491 E 19970408 US 1989-421096 19891012 JP 05328965 A2 19931214 JP 1992-131686 19920424 JP 07059188 B4 19950628 JP 07215995 A2 19950815 JP 1994-319042 19941129 DK 174458 B1 20030324 DK 2001-932 20010615 DK 174459 B1 20030324 DK 2001-933 20010615
PRAI US 1982-439252 A 19821104 US 1983-496027 A 19830519 EP 1983-306548 A 19831027 DK 1983-4980 L 19831031 US 1983-439252 A 19831104 US 1984-673469 A5 19841120
AB Methods for ***detecting*** the presence of a malignancy in samples from humans or other primates are described in which a high level of ***mRNA*** or the expression product of an oncogene is ***detected*** in a biol. fluid (e.g., blood, cerebrospinal fluid). The increased ***mRNA*** can be ***detected*** by ***hybridization*** with a ***cDNA*** ***probe*** for the diagnosis of neoplasms. Immunochem. ***detection*** of the oncogene expression product involves defining the ***DNA*** sequences of the retroviral oncogene which can cause malignancy. With the hybrid ***DNA*** technique, the sequence may be excised and introduced into a vector having the appropriate regulatory signals. After obtaining expression of the ***DNA*** sequences, antibodies to the peptide expression products can be prepd. The partial sequences of the peptide regions which are likely to be antigenic determinant sites are detd. and used for antibody prepn. These peptides can also be prepd. by a solid-phase synthesis

method. Antibodies can be labeled with 32P, fluorescers, or enzymes for ***detection*** of the peptides. Cytotoxin-labeled antibodies bound to ***liposomes*** can be introduced in vivo to go directly to a malignant tissue to treat the malignancy.

L16 ANSWER 224 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1983:569064 CAPLUS
DN 99:169064
TI Local anesthetic-membrane interaction: A multiequilibrium model
AU Wang, Howard H.; Earnest, Julie; Limbacher, H. Phillip
CS Dep. Biol., Univ. California, Santa Cruz, CA, 95064, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1983), 80(17), 5297-301 CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English
AB The ***detection*** of electrostatic interactions between local anesthetics and membrane phospholipids and ***proteins*** is reported. A pair of spin-labeled local anesthetics was used to study how membrane-bound tertiary amine anesthetics interact with major mol. components in the membrane. The nitroxyl reported group of the spin labels is located at the polar end of the amphiphilic local anesthetics; it is therefore a uniquely suitable ***probe*** for ***detecting*** immobilization of the anesthetic due to ***binding*** interactions at the polar regions of the bilayer. The ***binding*** properties of the spin-labeled anesthetics to human erythrocyte membranes and to ***vesicles*** made from human erythrocyte lipids were studied. Lipid ***vesicle*** -bound spin labels give rise to a composite ESR spectrum from which 2 subcomponent spectra were resolved. Both components are membrane-bound; the first component has a narrower linewidth, indicating a greater mobility of the nitroxyl moiety of the anesthetic ***probe*** . The second component has a broader linewidth, indicating a population of constrained spin labels. It appears that electrostatic ***binding*** between cationic anesthetics and anionic phosphate of phospholipids produced the constrained component. In similar studies using erythrocyte ghost membranes, both a mobile (nonelectrostatic) component and a constrained (electrostatic) component were resolved from the composite spectrum. However, the constrained component in this case is much broader than the corresponding constrained component from the ***vesicles*** . This broad component in the erythrocyte membrane is interpreted as an electrostatic interaction of cationic anesthetic ***probes*** with phospholipids and with membrane ***proteins*** . Thus, membrane-bound tertiary amine anesthetics in cationic form do interact selectively with phospholipids and ***proteins*** .

L16 ANSWER 225 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1983:434290 CAPLUS
DN 99:34290
TI Ethanol effects on synaptic glutamate receptor function and on membrane lipid organization
AU Michaelis, E. K.; Chang, H. H.; Roy, S.; McFaul, J. A.; Zimbrick, J. D.
CS Dep. Hum. Dev., Univ. Kansas, Lawrence, KS, 66045, USA
SO Pharmacology, Biochemistry and Behavior (1983), 18(Suppl. 1), 1-6 CODEN: PBBHAU; ISSN: 0091-3057
DT Journal
LA English
AB The enhancement of L-glutamic acid [56-86-0] ***binding*** activity of brain synaptic membranes by low concns. of EtOH [64-17-5] (<50 mM) and the decrease in ***binding*** at high concns. (>100 mM) was not due to a direct action by EtOH on the glutamate ***binding*** ***protein*** . Biphasic effects of EtOH on membrane ***protein*** complexes such as the glutamate ***binding*** sites might be the result of biphasic changes in membrane lipid organization. Low EtOH concns. (0.1-4.0 mM) were shown to decrease fatty acid chain motion ***detected*** by the EPR ***probe*** 5-doxyl stearic acid, whereas high concns. (>400 mM) increased lipid motion in egg phosphatidylcholine ***liposomes*** . The function of the L-glutamate receptor-ion channel complex in the presence of EtOH was also detd. by measuring the changes in thiocyanate influx brought about by L-glutamate or EtOH. A low concn. of EtOH (9.4 mM) diminished the L-glutamate-induced depolarization of synaptic membranes, whereas a high concn. (93.7 mM) increased the passive thiocyanate influx and produced a transient overshoot in glutamate-stimulated thiocyanate.

L16 ANSWER 226 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1982:138264 CAPLUS
DN 96:138264
TI Preparation of a fluorescent derivative of cytochrome b5 and its interaction with phospholipids
AU Gilmore, Reid; Glaser, Michael
CS Dep. Biochem., Univ. Illinois, Urbana, IL, 61801, USA
SO Biochemistry (1982), 21(7), 1673-80 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB A fluorescent deriv. of bovine cytochrome b5 was prepd. by using 5-(dimethylamino)naphthalene-1-sulfonyl chloride (dansyl chloride) in deoxycholate. Reaction conditions were established to specifically label the hydrophobic membrane- ***binding*** domain of the ***protein*** at a ratio of 0.9 dansyl group/cytochrome b5. Fluorescence measurements on the dansyl-labeled ***protein*** reflected the state of aggregation of the ***protein*** and its ***binding*** to lipids. The cytochrome b5 deriv. was a sensitive ***probe*** for the ***detection*** of phospholipid phase transitions in reconstituted phospholipid ***vesicles*** . The rotational relaxation time of the labeled ***protein*** was strongly influenced by the phospholipid compn. and the cholesterol content of the lipid bilayer, but it was largely insensitive to the integrity of the hydrophilic domain of the

protein . When the membrane- ***binding*** domain of cytochrome b5 was bound to phospholipid ***vesicles*** , a preferential assocn. with either the gel or the liq.-cryst. phase was not obsd. Evidently, the 2 domains of cytochrome b5 undergo predominantly independent motion and the motion of the dansyl-labeled membrane- ***binding*** domain directly reflects the properties of the bulk lipids in the bilayer.

L16 ANSWER 227 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:598377 CAPLUS
DN 93:198377
TI Unmasking effect of alamethicin on the (sodium-potassium ion)-ATPase, .beta.-adrenergic receptor-coupled adenylate cyclase, and cAMP-dependent ***protein*** kinase activities of cardiac sarcolemmal ***vesicles***
AU Jones, Larry R.; Maddock, Stephen W.; Besch, Henry R., Jr.
CS Sch. Med., Indiana Univ., Indianapolis, IN, 46202, USA
SO Journal of Biological Chemistry (1980), 255(20), 9971-80 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal
LA English
AB A mechanism for the activating effect of alamethicin [27061-78-5] on membrane enzymes was investigated, using a purified prepn. of cardiac sarcolemmal ***vesicles*** . (Na+, K+)-ATPase [9000-83-3], .beta.-adrenergic receptor-coupled adenylate cyclase [9012-42-4], and cAMP-dependent ***protein*** kinase [9026-43-1] activities were measured. Alamethicin increased ouabain-sensitive (Na+, K+)-ATPase activity of sarcolemmal ***vesicles*** 5-7-fold and adenylate cyclase activity 2.5-4-fold. Adenylate cyclase retained its sensitivity to the .beta.-adrenergic agonist isoproterenol [7683-59-2] after membranes were treated with alamethicin. Alamethicin caused a 4-6-fold increase in the no. of ***detectable*** (Na+, K+)-ATPase enzymic sites, but no increase was noted for the no. of muscarinic cholinergic receptor- ***binding*** sites. Phosphorylation of endogenous ***proteins*** of sarcolemmal ***vesicles*** by an intrinsic cAMP-dependent ***protein*** kinase activity was stimulated 5-7-fold by alamethicin. The regulatory subunit of the membrane-bound cAMP-dependent ***protein*** kinase was labeled with the photoaffinity ***probe*** 8-azido-adenosine 3',5'-[32P]monophosphate (8-N3-[32P]cAMP), and it migrated with an apparent mol. wt. of 55,000 in SDS polyacrylamide gels. Alamethicin stimulated autophosphorylation of the regulatory subunit of [.gamma.-32P]ATP 6-fold and incorporation of 8-N3-[32P]cAMP into the subunit 2.6-fold. Alamethicin apparently disrupts membrane barriers of sarcolemmal ***vesicles*** , which are mostly right side out, giving substrates and activators access to enzymic sites in the interior of the ***vesicles*** , while preserving functional coupling of enzymes to their effectors.

L16 ANSWER 228 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:490378 CAPLUS
DN 93:90378
TI Processing of precursor ***proteins*** by preparations of oviduct microsomes
AU Thibodeau, Stephen N.; Walsh, Kenneth A.
CS Dep. Biochem., Univ. Washington, Seattle, WA, 98195, USA
SO Annals of the New York Academy of Sciences (1980), 343(Precursor Process. Biosynth. Proteins), 180-91 CODEN: ANYAA9; ISSN: 0077-8923
DT Journal
LA English
AB The signal peptidases from chicken oviduct or dog pancreas microsomes were ***detected*** by a post-translational assay or by a cotranslational assay resp. This proteolytic activity was not sensitive to a variety of conventional protease inhibitors. With a synthetic ester substrate, 2 addnl. activities were obsd. in oviduct microsomes, but neither appears to correspond to the signal peptidase activity. Using complementary DNA as a ***probe*** for specific mRNAs, it was shown that polysomes, in the process of synthesizing secretory ***proteins*** , ***bind*** to microsomal membrane ***vesicles*** . This ***binding*** appears to be dependent on the nature of the translation product (presumably the specific signal ***peptide***) rather than on the mRNA itself. In addn., pretreatment of the membrane ***vesicles*** with N-ethylmaleimide prevents the vectorial discharge and processing of several secretory ***proteins*** but does not inhibit the ***binding*** of their polysomes to membranes.

L16 ANSWER 229 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1980:143717 CAPLUS
DN 92:143717
TI The synthesis of authentic sea urchin transcriptional and translational products by sea urchin histone genes injected into Xenopus laevis oocytes
AU Etkin, Laurence D.; Maxson, Robert E., Jr.
CS Dep. Zool., Univ. California, Berkeley, CA, 94720, USA
SO Developmental Biology (Orlando, FL, United States) (1980), 75(1), 13-25 CODEN: DEBIAO; ISSN: 0012-1606
DT Journal
LA English
AB Following the injection of recombinant plasmids contg. the sea urchin (Strongylocentrotus pupuratus) histone genes into the germinal ***vesicle*** (GV or oocyte nucleus) of Xenopus laevis oocytes, the transcriptional and translational products were analyzed. Plasmids pSp2 and pSp102 contained the identical sea urchin ***DNA*** fragment with the H1, H2B, and H4 histone protein-coding regions and adjacent spacer sequences, but were inserted in different vectors. The plasmid pRC 39 contained only that segment of the pSp2 eukaryotic fragment corresponding to the sea urchin H2B gene plus 125 base pairs of the upstream spacer sequences. The translational products produced under the direction of pSp2 and pSp102 comigrated with authentic sea urchin H1, and H2B histones in a 2-dimensional gel system. Since sea urchin H4 histone protein comigrated with endogenous Xenopus H4 histone, the

synthesis of the sea urchin protein could not be confirmed. The transcriptional products obsd. in oocytes injected in the GV with plasmids pSp2 and pSp102 ***hybridized*** to a radioactively labeled ***DNA*** ***probe*** produced from the H1, H2B, and H4 sea urchin histone genes, and comigrated with several of the authentic sea urchin histone ***mRNAs*** on polyacrylamide gels under denaturing conditions. Evidently, the injected sea urchin histone genes are transcribed properly and produce functional histone ***mRNAs*** in Xenopus oocytes. The injected genes were transcribed at .apprx.0.1 transcript/gene/h. This represents 107-108 transcripts, or .apprx.0.1% of the total transcriptional activity of stage 6 oocytes. Na proper transitional or translational produces were ***detected*** when plasmid pRC 39 was injected into the GVs of Xenopus oocytes. Thus, the eukaryotic fragment present in this plasmid may not contain the information for proper expression of the sea urchin H2B gene.

L16 ANSWER 230 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1978:436993 CAPLUS
DN 89:36993
TI The androgenic regulation of abundant ***mRNA*** in rat ventral prostate
AU Parker, Malcolm G.; Scrace, Geoffrey T.
CS Dep. Horm. Biochem., Imp. Cancer Res. Fund Lab., London, UK
SO European Journal of Biochemistry (1978), 85(2), 399-406 CODEN: EJBCAI; ISSN: 0014-2956
DT Journal
LA English
AB The most abundant poly(A)-contg. ***RNA*** species accounting for .apprx.50% of the total ***RNA*** is regulated by testosterone propionate (I) [57-85-2] in rat ventral prostate. A complementary ***DNA*** (***cDNA***) ***probe*** to these sequences was isolated by ***hybridizing*** the total cellular poly(A)-contg. ***RNA*** with its ***cDNA*** to an rot1/2 value of 2 .times. 10-1M s and sepg. the abundant ***cDNA*** from the nonabundant ***cDNA*** by hydroxyapatite chromatog. The abundant ***cDNA*** , complementary to .apprx.3 different poly(A)-contg. ***RNA*** sequences comprising 45% of the total poly(A)-contg. was used to investigate the effect of androgens on their metab. Following castration, there was a progressive decrease in the abundant sequences from 45% of the total in normal animals to <0.03% after 14 days; I administration in vivo resulted in their regeneration. The sequences were not ***detected*** in seminal ***vesicle*** , liver, heart, or spleen but represented .apprx.0.01% of the poly(A)-contg. ***RNA*** of kidney. Translation of the poly(A)-contg. ***RNA*** in vitro in a cell-free system derived from wheat germ resulted in the synthesis of 4 major proteins which could be sepd. by polyacrylamide gel electrophoresis. Their synthesis, as measured by methionine-35S incorporation, accounted for 40-50% of the total incorporation and declined after castration but was restored by I treatment. A class of abundant poly(A)-contg. ***RNA*** which codes for 4 major proteins is apparently regulated by I in rat ventral prostate.

L16 ANSWER 231 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1978:165801 CAPLUS
DN 88:165801
TI Specific ***binding*** of a cardiotoxin from Naja mossambica mossambica to charged phospholipids ***detected*** by intrinsic fluorescence
AU Dufourcq, Jean; Faucon, Jean Francois
CS Cent. Rech. Paul Pascal, Talence, Fr.
SO Biochemistry (1978), 17(7), 1170-6 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB The fluorescence of intrinsic tryptophan in cardiotoxin II from N. mossambica mossambica is a sensitive ***probe*** of interactions between the toxin and phospholipid ***vesicles*** . The formation of the lipid- ***protein*** complexes leads to a >3-fold increase in the fluorescence intensity and a blue shift of 10-15 nm. Cardiotoxin II does not ***bind*** to neutral or zwitterionic phospholipids, but interacts specifically with neg. charged phospholipids such as phosphatidylserine, phosphatidylinositol, and phosphatidic acid. The assocn. const. of the lipid- ***protein*** complex is >106 M-1, and its stoichiometry is 7 lipid mols./ ***protein*** mol., when only 1 neg. charge is borne by the lipid mol. Cardiotoxin induces the formation of clusters or lateral phase sepns. between neg. and neutral phospholipid mixts. The ***binding*** is reversible and is mainly due to electrostatic interactions between the basic residues of cardiotoxin and the phosphate and(or) carboxylic groups of the phospholipids. The complexes can be dissocd. either by an increase in ionic strength or by pH effects. Cations compete with cardiotoxin, with an efficiency that increases in the order Na+ = K+ << Mg2+ < Ca2+ < Mn2+. Neg. charged phospholipids may be the ***binding*** site of cardiotoxin on natural membranes.

L16 ANSWER 232 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1976:70475 CAPLUS
DN 84:70475
TI Mechanisms of active transport in isolated bacterial membrane ***vesicles*** . XXXI. Energy-dependent ***binding*** of dansylgalactoside to the lac carrier ***protein*** : direct ***binding*** measurements
AU Schuldiner, Shimon; Weil, Rudolf; Kaback, H. Ronald
CS Roche Inst. Mol. Biol., Nutley, NJ, USA
SO Proceedings of the National Academy of Sciences of the United States of America (1976), 73(1), 109-12 CODEN: PNASA6; ISSN: 0027-8424
DT Journal
LA English

AB High-specific activity 3H-labeled 6'-(N-dansyl)aminohexyl 1-thio-.beta.-D-galactopyranoside (Dns6-Gal) was synthesized and its ***binding*** to Escherichia coli membrane ***vesicles*** measured directly by flow dialysis. With ML 308-225 ***vesicles*** contg. the lac-carrier ***protein*** , specific ***binding*** was not ***detected*** in the absence of D-lactate or reduced phenazine methosulfate. In the presence of these electron donors, ***binding*** was obsd. The ***binding*** const. and no. of ***binding*** sites were .apprx.4 .mu.M and 1.5 nmole/mg of membrane ***protein*** , resp. These values are in excellent agreement with those obtained by fluorescence titrn. P-chloromercuribenzenesulfonate, which directly inactivates the lac-carrier ***protein*** , and carbonylcyanide m-chlorophenylhydrazone, which collapses the membrane potential, caused release of bound Dns6-Gal. Moreover, significant ***binding*** was not obsd. with membrane ***vesicles*** that were devoid of the lac-carrier ***protein*** . The results provided qual. and quant. confirmation of previous studies which indicated that changes in dansylgalactoside fluorescence obsd. on energization of membrane ***vesicles*** reflect ***binding*** of the ***probe*** to the lac carrier ***protein*** .

L16 ANSWER 233 OF 233 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1975:402789 CAPLUS
DN 83:2789
TI Interaction between spin-labeled acyl-coenzyme A and the mitochondrial adenosine diphosphate carrier
AU Devaux, Philippe F.; Bienvenue, Alain; Lauquin, Guy; Brisson, Alain D.; Vignais, Paulette M.; Vignais, Pierre V.
CS Lab. Biophys. Mol., Univ. Paris VII, Paris, Fr.
SO Biochemistry (1975), 14(6), 1272-80 CODEN: BICHAW; ISSN: 0006-2960
DT Journal
LA English
AB Spin-labeled long-chain (m,n)acyl-CoA's (general formula: CH3(CH2)mCR(CH2)nCOSCoA, where R is an oxazolidine ring contg. a nitroxide) inhibit anion transport through the inner mitochondrial membrane at low concns. as ordinary long-chain acyl-CoA's do. The inhibition const. relative to the inhibition of the ATP transport in heart mitochondria by spin-labeled palmityl-CoA and stearyl-CoA was of the order of 10-7M, a value which was similar to that found for natural long-chain acyl-CoA's. A short-chain spin-labeled acyl-CoA (C5) showed no inhibitory effect in the range of concns. tested (.ltoreq.30.mu.M). (10,3)Acyl-CoA added to heart mitochondria at low concns. gave spectra corresponding to an immobilized ***probe*** . The corresponding free fatty acid showed a higher freedom of motion at 0-30.degree.. The same differences in spectra of spin-labeled acyl-CoA and spin-labeled free fatty acid were found in inner membrane ***vesicles*** from rat liver mitochondria, but not in outer membrane prepns. The selective interaction of spin-labeled acyl-CoA with ADP carrier was indicated by the release of this interaction by specific ligands of the ADP carrier, such as ADP or ATP, carboxyatractyloside, and bongkrekic acid. ADP (or ATP) and carboxyatractyloside rendered the spin-labeled (10,3)acyl-CoA nearly as mobile as the (10,3) free fatty acid. No effect was obtained with AMP, GDP, or UDP which are not transported by the ADP carrier. Bongkrekic acid, another specific inhibitor of the ADP carrier, was inactive when added alone; however, it was effective when added together with amts. of ADP which were ineffective per se. The ESR spectrum obsd. at low concns. of (10,3)acyl-CoA arises from (10,3)acyl-CoA bound to the ADP carrier. At higher concns. the (10,3)-acyl-CoA is more mobile, suggesting that the bulk of the label is also present in the lipid phase of the membrane. Spin-labeled acyl-CoA's incorporated into a sonicated dispersion of lipids extd. from heart mitochondria exhibited similar mobile spectra. When the oxazolidine ring is moved down the hydrocarbon chain of the acyl-CoA, the ***binding*** features tended to disappear. Whereas nitroxide- ***protein*** interactions could be easily measured with the (10,3)acyl-CoA and the (7,6)acyl-CoA, much less or even no significant interactions could be ***detected*** with the (5,10)acyl-CoA or the (1,14)acyl-CoA. The above results suggest that spin-labeled long-chain acyl-CoA added to mitochondria ***binds*** by its polar moiety to the ADP carrier. The acyl chain interacts with the ADP carrier ***protein*** over a length of 10-15 .ANG.. The remaining portion of the acyl chain experiences a fluid lipid environment.

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L1 119381 S (VESICLE# OR LIPOSOM? OR POLYMEROSOM?)/BI,AB
L2 297848 S (PROBE# OR (TAG(W)MOLECULE#))/BI,AB
L3 5428 S L1 AND L2
L4 5281 S L3 NOT 2005/PY
L5 5007 S L4 NOT 2004/PY
L6 1196338 S (DNA# OR CDNA# OR RNA# OR MRNA# OR (NUCLEIC(W)ACID#))/BI,AB
L7 711 S L3 AND L6
L8 2306902 S (PEPTIDE# OR POLYPEPTIDE# OR PROTEIN#)/BI,AB
L9 2230 S L3 AND L8
L10 2408 S L7 OR L9
L11 328 S L7 AND HYBRIDI?/BI,AB
L12 827 S L9 AND BIND?/BI,AB
L13 1082 S L11 OR L12
L14 302 S L13 AND DETECT?/BI,AB
L15 280 S L14 NOT 2005/PY
L16 233 S L15 NOT 2004/PY

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